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BOMBAY BRANCH
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# STATEMENT

EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1902-03.

134461.

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Under Secretary of State for India.

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## NOTE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Of these reports, many are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces, and to the Government of India, for consideration and review before transmission to England. One annual volume which is largely used in the preparation of the Statement is the "Finance and Revenue Accounts of the Government of India," containing the complete audited accounts of the revenue and expenditure—Imperial, Provincial, and Local—of every public department in each Province of India, including the Railways, Irrigation Works, and other commercial enterprises which are under Government management.

Of the reports mentioned above, some, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is at about the same date that the Finance and Revenue Accounts are received.

It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year; and it is often necessary to exceed the prescribed date by some weeks.

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# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.



### THE CORONATION.

Two great ceremonies of Imperial interest marked the year under review: the Coronation of the King-Emperor at Westminster on the 9th August 1902, and the Durbar held at Delhi in honour of that auspicious event on the 1st January 1903.

To the former ceremony a limited number of Indian Princes had the honour to be bidden, and representatives from the Presidencies, Provinces, and Chief Centres of India were present as guests of this country.

A brief account of the Durbar at Delhi has already been published* and an official history of the proceedings is in course of preparation.

It need only be recorded here that simultaneously with the great ceremony at Delhi local celebrations were held with every demonstration of loyalty throughout the length and breadth of the Indian dominions of His Majesty the King-Emperor.

### ADMINISTRATION.

LIST of the holders in 1902–1903 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

| OFFICE. | —— | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| Secretary of State - - - | The Right Hon. Lord George Hamilton. | 5 July 1895 | |
| Permanent Under Secretary of State. | Sir Arthur Godley, K.C.B. - | 30 September 1883 | |
| Parliamentary Under Secretary of State. | The Earl of Hardwicke - | 17 January 1901 | |
| | *Earl Percy* - - - | 18 August 1902 - | |
| Members of the Council of India | Sir James B. Peile, K.C.S.I. | 12 November 1887 | Re-appointed 12 November 1897. |
| | Sir Alfred C. Lyall, K.C.B., G.C.I.E. | 17 January 1888 | Re-appointed 17 January 1898. |
| | Sir Charles H. T. Crosthwaite, K.C.S.I. | 3 March 1895 | In succession to Sir R. H. Davies. |
| | Sir Steuart C. Bayley K.C.S.I., C.I.E. | 16 September 1895 | In succession to Sir H. C. Rawlinson. |
| | F. C. Le Marchant - | 27 February 1896 | In succession to B. W. Currie. |
| | General Sir J. J. H. Gordon, K.C.B. | 1 January 1897 | In succession to Sir O. T. Burne. |
| | Sir Dennis Fitzpatrick, K.C.S.I. | 24 April 1897 | In succession to Sir J. Strachey. |
| | Sir J. L. Mackay, G.C.M.G., K.C.I.E. | 27 April 1897 | In succession to Robert Hardie. |
| | Sir John Edge, K.C. - | 30 March 1898 | In succession to Sir C. Turner. |
| | Sir Philip P. Hutchins, K.C.S.I. | 1 August 1898 | In succession to Sir A. J. Arbuthnot. |
| | Sir James Westland, K.C.S.I. | 8 August 1899 | In succession to Sir A. Alison. |
| | Lieut.-General Sir A. R. Badcock, K.C.B., C.S.I. | 26 March 1901 | In succession to Sir D. M. Stewart. |
| | *Sir William Lee-Warner*, K.C.S.I. | 12 November 1902 | In succession to Sir J. Peile. |
| | *Rt. Hon. Sir A. P. Macdonnell*, G.C.S.I. | 17 January 1903 | In succession to Sir Alfred Lyall. |
| Governor-General - - - | The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E. | 6 January 1899 | |

* Parliamentary Paper [Cd. 1644] 1903.

ADMINISTRATION.

| OFFICE. | —— | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| | General Sir A. P. Palmer (extraordinary), Commander-in-Chief. | 22 April 1901 | Commander-in-Chief from 19 March 1900. |
| | *General Viscount Kitchener of Khartoum*, G.C.B., O.M., G.C.M.G. (extraordinary). Commander-in-Chief. | 28 November 1902 | In succession to Sir A. P. Palmer. |
| Members of Council - - | Thomas Raleigh - - | 3 April 1899 | |
| | Sir E. F. Law, K.C.M.G. - | 31 March 1900 | |
| | Major-General Sir E. R. Elles, K.C.B. | 11 April 1901 | |
| | A. T. Arundel, C.S.I. - | 18 May 1901 | |
| | Sir D. C. J. Ibbetson, K.C.S.I. | 5 March 1902 | |
| Lieutenant-Governor of Bengal - | Sir John Woodburn, K.C.S.I. | 7 April 1898 | Died 21 November 1902. |
| | *J. A. Bourdillon*, C.S.I. - | 22 November 1902 | Officiating. |
| Lieutenant-Governor of the United Provinces of Agra and Oudh. | Sir J. J. D. La Touche, K.C.S.I. | 14 November 1901 | |
| Lieutenant-Governor of the Punjab. | Sir Charles M. Rivaz, K.C.S.I. | 6 March 1902 | |
| Lieutenant-Governor of Burma - | Sir F. W. R. Fryer, K.C.S.I. | 1 May 1897 | Formerly Chief Commissioner. |
| Chief Commissioner of the Central Provinces. | Sir A. H. L. Fraser, K.C.S.I. | 6 March 1902 | On deputation from September 1902 as President of the Indian Police Commission. |
| | *J. P. Hewett*, C.S.I., C.I.E. - | 16 September 1902 | Officiating. |
| Chief Commissioner of Assam - | Sir Henry J. S. Cotton, K.C.S.I. | 28 November 1896 | |
| | *J. B. Fuller*, C.S.I., C.I.E. - | 29 October 1902 | Acting from 29 April 1902. |
| Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara. | A. H. T. Martindale, C.S.I. | 9 March 1898 | |
| Resident in Mysore and Chief Commissioner of Coorg. | Lieutenant-Colonel Sir D. Robertson, K.C.S.I. | 10 February 1897 | |
| Resident, Hyderabad - - | Lieut.-Colonel Sir D. W. K. Barr, K.C.S.I. | 1 September 1900 | |
| Agent to the Governor-General in Central India. | C. S. Bayley, C.S.I. - - | 3 November 1901 | |
| Resident in Kashmir - - - | L. W. Dane - - - | 5 November 1901 | Appointed Secretary to the Government of India in the Foreign Department, 17 March 1903. |
| | *E. G. Colvin* - - | 17 March 1903 | Officiating from 24 September 1902. |
| Resident and Agent to the Governor-General, Baroda. | Lieutenant-Colonel M. J. Meade, C.I.E. | 5 November 1901 | |
| Agent to the Governor-General in Baluchistan and Chief Commissioner of British Baluchistan. | Colonel C. E. Yate, C.S.I., C.M.G. | 24 December 1900 | |
| Political Resident, Persian Gulf and H.B.M.'s Consul-General at Bushire. | Major (temporary Lieut.-Colonel) C. A. Kemball, C.I.E. | 7 April 1900 | Officiating Political Resident. Acting Consul-General at Bushire from April 1900; Consul-General from 2 June 1902. |
| Governor of Madras - - - | Lord Ampthill, G.C.I.E. - | 28 December 1900 | |
| Members of Council - - - | Sir Henry M. Winterbotham, K.C.S.I. | 9 November 1898 | |
| | J. Thomson, C.S.I. - - | 9 May 1901 | |
| Governor of Bombay - - - | Lord Northcote, G.C.I.E. - | 17 February 1900 | |
| Members of Council - - - | Sir E. C. K. Ollivant, K.C.I.E | 24 April 1897 | |
| | Sir J. Monteath, K.C.S.I. - | 6 August 1900 | |
| | *E. McG. H. Fulton* - - | 24 April 1902 | In succession to Sir E. Ollivant. |
| Political Resident, Aden - - | Major-General P. J. Maitland, C.B. | 25 June 1901 | |

## LEGISLATION.

Between the 1st April 1902 and the 31st March 1903, fifteen Acts were passed by the Council of the Governor-General for making Laws and

Regulations, two by the Legislative Council of Madras, two by that of Bombay, two by that of the Punjab, six by that of Bengal, and two by that of Burma. In the United Provinces of Agra and Oudh no Bill was passed during the year. Four Regulations were also passed by the Governor-General in Council, on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vic. c. 3. LEGISLATION.

The following were the more important of the measures referred to :— India.

Act VIII. of 1902 "to amend the Indian Tariff Act, 1894," empowered the Government of India, by imposing further duties at the port of importation into India, to countervail the bounties on sugar created by the operations of the trade combinations known as cartels. Act XIV. of 1899 had already given the power to countervail bounties granted by foreign Governments. The Act was to remain in force only until the 31st August 1903. Indian Tariff (Amendment) Act, 1902.

Act IX. of 1902 "to amend the Indian Paper Currency Act, 1900," made the latter Act permanent by repealing the clause which limited its operation to a period of two years. Indian Paper Currency Act, 1902.

Act X. of 1902 "further to amend the Indian Emigration Act, 1883," is referred to in the chapter of this review dealing with emigration. Indian Emigration (Amendment) Act, 1902.

Act XI. of 1902 "to make further provision for sanitation in villages in the Central Provinces," repealed Act XIX. of 1889, and re-enacted its provisions with certain amendments which experience had shown to be desirable. Central Provinces Village-Sanitation Act, 1902.

Act I. of 1903 was passed with the object of lightening the Statute-book, and paving the way for the publication of a new edition of the Bengal code. With two or three unimportant exceptions, the repeals and amendments were purely formal. Repealing and Amending Act, 1903.

Act II. of 1903 "to amend the Indian Post Office Act, 1898," enabled the Union, instead of the inland, rules and rates of postage to be made applicable, by Notification, to articles of private correspondence exchanged between British Indian post offices and Indian post offices in Persia and Turkish Arabia. Indian Post Office (Amendment) Act, 1903.

Act III. of 1903 "to make better provision for facilitating and regulating the supply and use of electrical energy for lighting and other purposes," provides that no energy shall be supplied for electric traction, or to the public for any purpose, except under the terms and conditions of a license to be granted by the local government, and makes provision for the grant and revocation of licenses, for the laying of lines, and generally for the regulation of the supply of energy. The supply of electricity otherwise than as above indicated is to be regulated by rules laid down under the Act. Indian Electricity Act, 1903.

Act IV. of 1903 "further to amend the Provident Funds Act, 1897," secured more completely to the widows and orphans of subscribers to, and depositors in, Government or Railway Provident Funds, the protection from debts and liabilities incurred during the lifetime of the deceased which was intended to be given by the Act of 1897. Provident Funds (Amendment) Act, 1903.

Act V. of 1903 "further to amend the Indian Ports Act, 1889," corrected three defects of a formal character which had been brought to notice in the working of the latter Act. Indian Ports (Amendment) Act, 1903.

Act VI. of 1903 "further to amend the Indian Paper Currency Act, 1882," introduced provisions which were designed to facilitate an increase in the circulation of five-rupee notes, so as to admit of a larger portion of the currency reserve being held in gold or invested securities, and to do away with the obligation imposed on Government of providing at the Presidency towns, as well as in the sub-circles, cash for payment of sub-circle currency notes exceeding five rupees. Indian Paper Currency (Amendment) Act, 1903.

Act VII. of 1903 provided for the establishment round works of defence of concentric zones in which restrictions of varying stringency were to be Indian Works of

LEGISLATION.

Defence Act, 1903.

placed upon the use and enjoyment of land, the object being to enable Government to maintain, clear of buildings and obstructions, such zones of fire as are essential to the defensive value of works under the conditions of modern warfare.

Probate and Administration Act, 1903.

Act VIII. of 1903 extended to all High Courts the power to grant probates of wills and letters of administration having effect throughout British India, and conferred upon District Judges the power to grant such probates in certain cases.

Indian Tea Cess Act, 1903.

Act IX. of 1903 provided for the levy of a small customs-duty on Indian tea exported from British India, with the object of creating a fund for pushing the sale and increasing the consumption of such tea. The administration of the fund was entrusted to a special committee, consisting of members representing the tea interest and recommended by local mercantile bodies.

Victoria Memorial Act, 1903.

Act X. of 1903 made legal provision for the erection, maintenance, and management of the building which it was proposed to construct at Calcutta as a Memorial of the life and reign of the late Queen-Empress, and for the incorporation of a permanent body of trustees.

Indian Income-tax (Amendment) Act, 1903.

Act XI. of 1903 "further to amend the Indian Income-tax Act, 1886," raised the limit below which incomes are not liable to income-tax from Rs. 500 to Rs. 1,000 per annum. This Act was passed in connection with the Budget statement of March 1903.

Madras.
Madras Impartible Estates Act, 1902.

Act II. of 1902 was intended to prevent, for the space of one year, and pending the passing of a permanent measure, the dismemberment of old landed estates in the presidency, which recent judicial decisions appeared to render probable. Certain specified estates were declared impartible, and restrictions were placed on the rights of the proprietors to alienate them. The Act was to continue in force until the 1st June 1903; by Act II. of 1903, passed shortly after the end of the period under review, its operation was continued until the 1st March 1904.

Madras Planters Labour Act, 1902.

Act I. of 1903 "to regulate the conditions of labour in the planting districts of the Presidency of Madras," aimed at removing, in the interests of both the planter and the labourer, various difficulties which had hampered the development of planting enterprise. While regulating the form and operation of labour contracts, and providing facilities for an employer to enforce a statutory contract against a labourer through the criminal courts, the Act at the same time enabled the magistracy to require from employers fair treatment and proper accommodation for their labourers.

Bombay.
City of Bombay Police Act.

Act IV. of 1902 "to amend and consolidate the law relating to the Police in the City of Bombay," was intended to provide, in one comprehensive enactment of Police law, for remedial and preventive measures which the growing needs of the city rendered necessary. The Act deals fully with the organisation and discipline of the police, and with their powers and duties.

Bengal.
Chittagong Port Commissioners (Amendment) Act, 1903.

Act IV. of 1903 authorised the imposition of a small river-due on goods imported into or exported from Chittagong in sea-going vessels, with a view to placing the finances of the Port on a more satisfactory basis.

Punjab.
Punjab Military Transport Animals Act, 1903.

Act I. of 1903 provided for "the periodical enumeration and registration of animals in the Punjab fit, or ordinarily used, for the purposes of military transport, and for the compulsory acquisition of such animals in time of war, and for impressment of the same for hire for purposes of military transport at any time." It is hoped that this Act will regularise and distribute the burden which in former frontier campaigns was often unequally and unfairly spread over the districts of the province.

Burma.
Upper Burma Towns Regulation (Amendment) Act, 1903.

Act I. of 1903 was passed for the purpose of taking power under the Upper Burma Towns Regulation, 1891, to require reports to be made of the arrival of strangers in certain towns in Upper Burma, similar to the power already exercised in villages under the village enactments of both Upper and Lower Burma, the object being to obtain early information of the movements of dangerous characters.

LEGISLATION.

Regulations. Aden Sea-traffic in Arms Regulation, 1902.

Two Regulations of some importance were passed with respect to Aden. The first removed from the Aden Pilgrims and Paupers Regulation, 1887, the clause which limited its operation to natives of Asia and Africa. This step was necessitated by the fact that large numbers of indigent Europeans, mainly Italians, had in recent years made their way to Aden, throwing considerable expense upon the Residency. The second aimed at restricting the traffic in arms and ammunition between Aden and places in the Gulf of Aden. Provision was made for the taking of surety-bonds from the masters of vessels, for the detention and confiscation of vessels in certain cases, and for the establishment of searching posts at landing places.

## CHAPTER II.

## LOCAL SELF-GOVERNMENT.

GENERAL.

Local self-government, municipal and rural, in the legally constituted form in which it now prevails in India, is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and the various provincial Acts passed about that time, which form the basis of the provincial systems at present in force. Municipal committees now exist in most places having any pretension to importance, and have charge of municipal business generally, including the care and superintendence of streets, roads, fairs and markets, open spaces, water supply, drainage, education, hospitals, and the like. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, education, hospitals, and dispensaries in rural districts. A large proportion of their income is provided by provincial rates. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1902–03, apart from loans, sale of securities, and such-like extraordinary receipts, was £3,473,500. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The expenditure by the local and district boards during the year was £3,534,000, partly met by grants and transfers from provincial revenues. Of the revenue classed as "local," amounting to £3,158,000, the rates levied on land, "for expenditure on roads, schools, hospitals and general purposes," account for 72 per cent.; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, and the rent of corporate property. The balance consists of grants by the Government for educational and other purposes.

The income of the port funds, exclusive of loans, &c., amounted in 1902-03 to £1,281,500.

The revenue of cantonment funds amounted to £177,000; that of town and bazaar funds came to £71,000; and other miscellaneous funds had a revenue amounting to £150,700.

Thus, the revenue managed by all the various local bodies amounted in 1902–03 to about £8,688,000, besides large sums proceeding from loans and sale proceeds of investments.

### MUNICIPALITIES.

MUNICIPALITIES. General.

The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals Bombay, Calcutta, and Madras. In the majority of towns, most of the commissioners or members of the committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all the members, are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere largely exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

MUNICIPALITIES.

The sources of municipal revenue, apart from loans and Government contributions, are usually divided under the two heads, "Taxation," and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, and North-West Frontier Province, the Central Provinces, and Bombay; and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. There are also water rates and conservancy rates, tolls on roads and bridges, and taxes on animals and vehicles, and in some places a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses, and fees of various kinds.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the members of the committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in 1902–03:—

| — | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Natives. |
| *Presidency Towns, &c.:—* | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | Return not available. | | | |
| Bombay | 1 | 72 | — | 16 | 56 | 7 | 65 | 12 | 60 |
| Madras | 1 | 33 | 1 | 8 | 24 | 10 | 23 | 8 | 25 |
| Rangoon | 1 | 25 | — | 6 | 19 | 3 | 22 | 13 | 12 |
| *District Municipalities:—* | | | | | | | | | |
| Bengal | 157 | 2,198 | 110 | 937 | 1,152 | 327 | 1,871 | 264 | 1,934 |
| Bombay (including Karachi). | 166 | 2,277 | 470 | 923 | 884 | 619 | 1,658 | 182 | 2,095 |
| Madras | 60 | 938 | 65 | 426 | 447 | 213 | 725 | 160 | 778 |
| United Provinces | 104 | 1,396 | 157 | 206 | 1,033 | 329 | 1,067 | 266 | 1,130 |
| Punjab* | 184 | 1,662 | 306 | 566 | 790 | 352 | 1,310 | 119 | 1,543 |
| North-West Frontier Province.* | 11 | 167 | 52 | 115 | — | 53 | 114 | 24 | 133 |
| Central Provinces | 46 | 576 | 20 | 158 | 398 | 126 | 450 | 62 | 514 |
| Assam | 14 | 141 | 21 | 69 | 51 | 47 | 94 | 27 | 114 |
| Burma | 41 | 535 | 170 | 270 | 95 | 199 | 336 | 154 | 381 |
| Berar | 12 | 179 | — | 107 | 72 | 55 | 124 | 28 | 151 |

* Including "notified areas."

The total indebtedness of municipalities amounted at the end of 1902–03 to £7,961,700, of which £2,179,500 was owed by the Calcutta Municipality and £3,143,700 by Bombay City. Against this total has to be set £688,200 standing at credit of the various sinking funds.

BENGAL. Calcutta.

The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of a chairman and 12 members, who are selected from among the commissioners, four by the elected, and four by the

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nominated commissioners, and four by the Local Government. The report for 1902–03 is a record of strenuous and many-sided activity. During the three years in which the new Act has been in force there has been a reorganisation of every department by which the work of the municipality is carried on, the reforms proceeding on the lines of devolution of powers, definition of authority, and increase in the numbers and pay of the supervising staff. The changes have had an excellent result in all departments, and especially in that which is concerned with the collection of revenue.

The financial position of the Corporation is thoroughly sound. The revenue of the year, apart from extraordinary and debt headings, was £398,800, or rather less than the figure for 1901–02, but the apparent falling off is illusory, being due to the decline in the heavy recoveries of arrears which have swollen the figures in recent years. The gross expenditure was £503,700, and the balance at the end of the year was £53,000. Of the receipts £344,800 accrued from municipal rates and taxes, which included, as in the previous year, a general rate of 9½ per cent., and water, lighting, and sewage rates aggregating 10 per cent., besides taxes on animals and vehicles and on trades and professions. The incidence of the net receipts from consolidated rates per head of the population was Rs. 5½; and including other taxes the total incidence of taxation was about Rs. 6⅕ per head. The total assessed valuation of the city rose to £1,602,700. About £139,500 of the expenditure shown above was met from loan funds, chiefly from the drainage and miscellaneous loan, but also from the water supply loan, and to a small extent from the loan raised for plague; of the remainder, £78,300 was spent out of income for interest and other charges in connection with the water supply, £34,600 for lighting, £24,800 for sewage, and £220,000 for general purposes, including conservancy. A loan of £100,000 was raised in the year for drainage and water-supply and miscellaneous purposes; it bears interest at 4 per cent., and was floated at an average rate of 98½; the indebtedness of the Corporation increased by a net sum of £33,300, and stood at £2,179,500 at the end of the year, which is well within the legal limit. The Calcutta Improvement scheme was still under consideration.

Interior of Bengal.

The municipalities in the interior of Bengal numbered 157, besides two new municipalities which were constituted shortly before the close of the year. The incomes of the municipalities, excluding debt heads, amounted to £283,000, of which £219,600 came from taxation. The taxes are levied either on persons, according to their circumstances and property, or on holdings at a rate generally 7½ per cent. of the assessed annual value, besides lighting and water rates; there are no octroi duties. The general question of improving the procedure of assessment has engaged the attention of the Government, and the outlines of a scheme for a trained staff of permanent assessors were formulated. The total expenditure of the funds, excluding debt heads, was £321,500, of which £24,200 was for water-supply, £11,400 for drainage, £83,800 for conservancy, £31,300 for hospitals and dispensaries, and £49,700 for buildings and roads. The closing balances amounted to £55,400, being increased by the inability of the Howrah municipality to utilise the loan funds received from Government during the year. The difficult question of municipal administration of Puri, a great pilgrimage centre, received special attention during the year. At Howrah a great improvement in the financial administration of the municipality has rendered it possible for the Commissioners to carry out large schemes of sanitary improvement.

United Provinces.

In the United Provinces the framing of rules under the Act of 1900 and the laborious work of the revision of the octroi schedules were engaging the attention of the boards. These numbered 104, as in previous years; but after the close of the year, 15 of the more backward were converted into "notified areas." Octroi duties were levied in 82 towns; thirty-nine schedules were entirely recast during the year. The income of the municipalities, excluding loans, was £370,500, of which £276,100 accrued from taxation. Of the taxation revenue, octroi duties accounted for a net amount of £197,900, compared with £208,500 in 1901–02, the decrease being due to a return to a normal figure after the exceptional conditions of the preceding year, when stocks of grain were accumulated in anticipation of higher prices. In view of the effect of plague, it is regarded as satisfactory that the receipts

stood as high as they did. The average incidence of taxation per head of population was nearly Re. 1¼, though this rate was greatly exceeded in the hill municipalities. The expenditure also showed an increase, amounting to £387,100, excluding debt and advances. It included £150,400 spent on water supply, drainage and conservancy, and £12,600 on plague. Small loans were taken from the Government by Agra and two other towns, and a loan of £8,100 by Benares, during the year, while Cawnpore floated a consolidated loan of £67,700 in the open market, refunding to Government the advances made towards its sewerage scheme. MUNICIPALITIES.

There were in the Punjab 138 municipalities, besides 46 notified areas, which have a modified form of municipal government. Elected members serve on 109 of the municipal committees, the proportion being generally two elected to one nominated member. The total income of the municipalities and notified areas, excluding loans and extraordinary receipts, was £329,300, of which £193,600 was raised by octroi duties, in force in 141 towns. The poor harvests of the year, and the disorganisation caused in some places by plague, resulted in a decreased return from octroi duties, and in spite of an improvement under other taxes the total receipts from taxation were less by about £11,700 than in the preceding year. The average incidence of taxation was 23 annas per head of the municipal population. The expenditure rose from £299,900 to £346,100, including £47,700 on fire brigades, lighting and police, £39,700 on education, £42,500 on conservancy, and £30,400 on roads and buildings. The Government advanced £14,400 to Amritsar, and other smaller amounts to other towns, while Lahore raised £20,000 in the market, for waterworks and drainage, and repayments were made to Government by various towns amounting to £7,800. Punjab.

In the town of Rangoon there is a municipal committee of 25 members, for the most part elected by the various national communities, with a salaried president. There was a general election during the year, of which a notable feature was a contest, for the first time, for the representation of the Chinese community. The ordinary revenue continued to increase, and amounted to £164,200, against £150,500 in 1901–2, in spite of the reduction of the rate of the general municipal tax from 9 to 8 per cent. at the beginning of the year under report, which resulted in a decline of the receipts under that head. Of the above total, direct taxation accounted for £89,100, falling at the rate of Rs. 6 per head of the population. Loans for £222,200 were raised in the open market at 4½ per cent., chiefly on account of the new Hlawga water supply scheme and the town lands reclamation works. The expenditure was £290,700, apart from repayment of loans and advances, but including the large expenditure on the above-mentioned schemes. The debt of the municipality at the end of the year was £559,000, against which has to be set a sinking fund of £36,500; the net addition to the debt during the year was £175,600. The financial questions raised regarding reclamation and the credit of receipts from town lands were still under discussion. The main point, namely, that the receipts should be devoted to the reclamation of waste lands in Rangoon for 50 years, had been conceded by the Government, but a further question, relating to the provision of adequate accommodation for the housing of the poor, was being considered. BURMA. Rangoon.

The number of other municipalities in Burma at the end of 1902–03 was 40, or one less than at the beginning of the year. Elected members were serving on 10 of the committees; but with the exception of Mandalay little interest was shown in the elections. The income of the municipalities, excluding debt heads, was £165,800, of which £65,200 came from taxation and ferry tolls, and £73,300 from markets and slaughter-houses. There are no octroi duties in Burma. The expenditure, excluding repayment of loans and advances, amounted to £105,100, the closing balances rising to an aggregate of £47,800. The expansion of expenditure is mainly due to the large works in course of execution at Moulmein, Prome, and Myaungmya, the cost of which has been met by raising loans. The amount spent on upkeep of water supply and drainage works, conservancy and hospitals, was £64,200; and capital outlay on water supply accounts for £26,700. Loans to the total amount of £36,300 were granted to Moulmein, Prome, and Myaungmya, but the total outstanding indebtedness of the municipalities the end of the year was no more than £18,600. The municipal funds Interior of Burma.

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are for the most part small, only six, including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of municipal population was $20\frac{1}{2}$ annas, the highest rate being Rs. $2\frac{3}{4}$ at Moulmein.

Central Provinces.

In the Central Provinces 46 towns had municipal committees in 1902–03, but in spite of the recent exclusion of several very small places from the operation of the Act there are still many municipalities whose importance is very small, and only 20 of them have a population exceeding 10,000. The municipal incomes, excluding loans and advances, amounted to £99,600, of which £55,500 accrued from octroi duties, levied in 25 municipalities. The incidence of taxation per head of the municipal population was Re. $1\frac{5}{8}$, that of income from all sources being Rs. $2\frac{5}{16}$. In Nagpur, the most important of the towns, a new tax on animals and vehicles was imposed. The expenditure was £100,900, excluding advances and repayment of loans; this sum included £16,100 for refunds of octroi duties on exported articles, £17,100 for conservancy, £10,200 for education, and £8,000 for hospitals and dispensaries. After taking into account a few small loans from Government, the balance at the credit of the municipalities at the end of the year was £16,000, compared with £17,500 at the beginning, only one town, Jubbulpore, being without a balance to its credit. There was an epidemic of plague, and the expenditure entailed by it accounts for the low state of the finances in Jubbulpore and in some other towns. Several of the committees failed to do their duty in face of the epidemic, but there were many honourable exceptions.

Assam.

The number of municipalities in Assam, including two stations and three unions, remained at 14, but only three of them have a population of more than 10,000. The income, excluding deposits and advances, amounted to £15,700, compared with £16,300 in the previous year; but a large part of the receipts consist of contributions from Government, and some of the decrease was due to a special grant made to Shillong in the previous year. The receipts from taxation were £8,000, the incidence of taxation being $20\frac{1}{6}$ annas per head of the municipal population. The expenditure was £16,100, of which £7,200 was spent on water supply, drainage and conservancy.

MADRAS.

Madras City.

On the municipality of Madras there are 33 Commissioners, 24 being elected by the ratepayers. Two elections were held, at which 33 per cent. of the registered electors came to the poll. The income of the year, including £19,400 borrowed in the open market, amounted to £124,400, of which £72,100 came from taxation and £23,100 from municipal property and powers apart from taxation, these two items showing a steady increase as compared with 1901–02. Taxation fell on the population at the rate of Rs. $2\frac{1}{8}$ per head; the principal tax is one of 10 per cent. on buildings and lands, and there is also a water tax at 4 per cent. and a lighting tax at $1\frac{1}{4}$ per cent., besides a tax on professions and trades, and taxes and tolls on animals and vehicles; there are no octroi duties. The expenditure came to £109,700, of which £17,700 was spent on maintenance of the existing water supply and drainage works, £12,700 on new works, and £19,500 on conservancy. The outstanding debt of the municipality amounted on the 31st March 1903 to £392,200, against which must be set the sinking fund, amounting to £109,450.

Interior of Madras.

The number of municipalities in the interior of Madras was 60, of which 56 contained elected members. Two towns, to which the privilege of election had been extended, did not exercise it. The right of electing the chairman was withdrawn from the Tanjore municipality, owing to the extreme inefficiency of the administration; 36 towns now have the privilege. The total income of the municipalities, excluding debt heads, was £195,800, of which £126,000 was drawn from taxation and tolls. There was a slight increase in the receipts from taxes, which included the tax on buildings and lands and the water and drainage tax and the tax on arts and professions. The average incidence of taxes and tolls was close upon Re. 1 per head of the municipal population; there are no octroi duties in these towns. The expenditure was £242,700, of which £97,000, or £21,500 more than in the previous year, was spent on public works. The outstanding debts at the end of the year amounted to £124,000, against which there were sinking funds of £6,290.

MUNICIPALITIES. BOMBAY. Bombay City.

The municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The revenue realised was £545,000, or £27,300 more than in 1901–02, owing for the most part to an increase in the receipts from octroi duties, a source of revenue which is always liable to fluctuation. The general rate was maintained at 10 per cent., to which it had been reduced in 1901–02 from 12 per cent., and the reduced rates on grain and firewood were also retained. There was, however, a deficit, met out of the excessive surplus balances in hand, which it is desired to reduce. After eliminating all fortuitous increases in revenue it is estimated that the permanent addition during the year to the income of the municipality may safely be placed at £6,700. The expenditure was £563,500, or £15,100 more than in the preceding year, including a contribution of £33,300 to the City Improvement Trust, £100,100 spent on public works under the Engineer's control, £133,700 on public health, and £180,700 on debt services. The balance at the end of the year was £151,500, compared with £6,700 required by law, and with £168,900 at the end of the preceding year. Against this are to be set an estimated deficit of £20,200 in the ensuing year, and the necessity for a further payment of £34,100 in April 1904 for the City Improvement Trust. The net advances of £86,600 made from current revenue for expenditure on plague operations had been recouped, such expenditure being now entirely met from loan funds.

Loans to the amount of £80,000 was raised from the public for plague purposes; the outstanding debt at the end of the year was £3,143,700, the sinking fund amounting to £274,800. The expenditure from loan funds during the year was £32,300 on sewerage works, and £4,200 on minor works, besides a plague expenditure of £15,400, compared with £29,600 in the preceding year. The expenditure since the plague began was £383,500 at the end of March 1903, of which £96,700 has been received from the Government, and the remainder has been met partly by plague loans, and partly out of other loan funds.

The first of the schemes undertaken by the City Improvement Trust, namely, the Nagpada scheme, had been practically completed by the end of the year 1902–03, the acquisition of properties in connection with the second scheme (Queen's Road to Carnac Bridge) was also far advanced, and considerable progress had been made in acquiring property for two other schemes. Two additional schemes, for reclamation of a part of Colaba and for the improvement of the Mandvi-Koliwada section of B ward respectively, were sanctioned during the year; and two other important schemes have been notified, besides several minor schemes, one of which received sanction during the year. A loan for £200,000 at 4 per cent. was raised at an average rate of rather more than 98. The year's revenue of the Trust amounted to £69,000, and the expenditure, exclusive of capital charges, to £34,200. The revenue consisted of the statutory municipal contribution £33,300 mentioned above, and other receipts from investments, rents, and other proceeds of property. The capital expenditure during the year amounted to £242,100, bringing the grand total to the end of 1902–03, with the proportionate cost of engineer's establishment, &c. up to £403,000.

Interior of Bombay.

The municipalities in the interior of Bombay numbered 166, of which five were temporary. The municipality of Bassein continued under suspension during the year. Forty-one municipal committees were entirely composed of nominated members. The income of the municipalities was £398,900, excluding loans and advances, and of this total £238,400 was raised by taxation, the incidence per head of population varying from Rs. 5½ in Karachi downwards. The receipts showed a general increase, part of which was due to the Ahmedabad municipality having raised in the open market £13,000 of the loan sanctioned for drainage works. Larger octroi receipts, however, contributed to swell the total. The expenditure, also excluding loan heads, increased by £13,609, owing to larger outlay on drainage and water supply in the towns of the northern division, and stood at £381,800. The total indebtedness of the municipalities amounted at the end of the year to £286,100. Repayments of debt during the year amounted

MUNICIPALITIES. to £17,100, which was almost exactly balanced by the fresh loans raised. The closing balance at credit of the municipal funds was £101,800.

Berar. The number of municipalities in Berar was 12, as in the previous year, and in six of these towns the majority of the municipal committees are elected by the ratepayers. The finances and administration of most of the Committees were tried by the appearance of plague, and it is satisfactory that they were found to work well, many of the members receiving special notice for good work. The income of the municipalities, excluding deposits and advances, was £18,900, including £9,400 from rates and taxes; there are no octroi duties. The expenditure was £16,800, apart from deposits and advances, a small item; and the closing balances amounted to £19,400.

## DISTRICT BOARDS.

DISTRICT BOARDS. General. The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; in most provinces district committees had, for many years, given assistance or exercised control in the administration of local roads, local hospitals, and local schools, but before 1870 there was no organised attempt to introduce rural self government. The present system is based on the principles laid down by the Government of Lord Ripon, in 1882. In all the more advanced provinces district boards are constituted under different enactments. The funds of the boards are supplied for the most part from the yield of specific imposts, known as provincial rates, made over to them in whole or in part by the local governments. They have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. But the part of the district funds which admits of an extension of the general usefulness of the boards is that accruing from provincial rates. In most provinces the district boards delegate much of their detailed work to sub-divisional or "local" boards, which are constituted under the law, and are responsible for sub-divisions or parts of a district. The local boards contain a proportion of elected members, varying from three-quarters to a half of the whole number in all provinces excepting Assam, where the elective system has not been generally introduced, and Madras, where it is only applied to members of district boards. The latter are to a large extent chosen, either by election or appointment, from the ranks of the local board members. The following table shows the general constitution of the boards in each province, the figures in italics relating to the local boards:—

| — | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex Officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Native. |
| Madras - | 21 | 658 | 102 | 244 | 312 | 256 | 402 | 124 | 534 |
| | *80** | *1,176* | *81* | *1,095* | — | *356* | *820* | *90* | *1,086* |
| Bombay - | 24 | 524 | 3 | 286 | 235 | 130 | 394 | 68 | 456 |
| | *207* | *3,049* | *29* | *1,655* | *1,365* | *631* | *2,418* | *121* | *2,928* |
| Bengal - - | 42 | 842 | 213 | 296 | 333 | 270 | 572 | 214 | 628 |
| | *104* | *1,249* | *46* | *845* | *358* | *175* | *1,074* | *110* | *1,139* |
| United Provinces. | 48 | 936 | 271 | 57 | 608 | 274 | 662 | 101 | 835 |
| Punjab - - | 27 | 1,080 | 203 | 499 | 378 | 233 | 847 | 64 | 1,016 |
| | *28* | *533* | *26* | *164* | *343* | *25* | *508* | *3* | *530* |
| Central Provinces. | 17 | 328 | 8 | 76 | 244 | 49 | 279 | 16 | 312 |
| | *55* | *905* | *33* | *184* | *688* | *102* | *803* | *5* | *900* |
| Assam - - | *19* | *364* | *59* | *172* | *133* | *71* | *293* | *135* | *229* |
| Berar - - | 6 | 157 | — | 32 | 125 | 301 | 127 | 7 | 150 |
| | *21* | *377* | — | *126* | *251* | *30* | *347* | — | *377* |

* Besides 379 union panchayats, with 3,574 members.

In Bengal there were 42 district boards as in the previous year, and there were also 57 union committees entrusted with minor duties. It is reported that at present the union committees, which are formed with the object of stimulating local interest in sanitary improvements, are no real help to the administration. With three exceptions each district board held 12 or more meetings. Of the local boards 49, or nearly one half, failed to meet once a month. The income of the district boards, apart from the head of deposits and advances, rose from £459,800 to £519,000, owing chiefly to special contributions from the local government towards the improvement of communications in backward districts. These figures include £292,000 from the road cess. The expenditure, also excluding deposits and advances, was £489,700, of which £116,500 was spent on education and £306,400 on civil works. The closing balances amounted to £154,700, which was considerably in excess of their amount at the end of the preceding year. The district boards are reported to have worked smoothly, but the members of the local boards display little interest, and have a tendency to leave all duties to the official chairman.

District Boards. Bengal.

There were, as in the previous year, 44 district boards and four district committees in the United Provinces. The income of the boards and committees during 1902–03 was £413,800, excluding deposits and advances; of this amount, £220,700 came from provincial rates, and £77,800 was contributed by the local government, including a large special grant for education. The ordinary receipts, apart from contributions, showed a considerable increase, chiefly owing to larger revenue from provincial rates, pounds, and ferries. The expenditure amounted to £410,600, the additional sums received in the manner described being used for the furtherance of primary education, the equipment of hospitals and dispensaries, the erection of school and dispensary buildings, and the improvement of communications. The new scheme of local finance mentioned in last year's Statement is still under consideration. When it is introduced, a larger measure of independence in the exercise of their financial powers will be secured to the boards, and ample opportunity will be afforded for the expenditure of the accumulated balances, which stood at £93,400 at the end of the year.

United Provinces.

The number of district board in the Punjab was 27, and that of the local boards 28, as at the end of the preceding year. Local boards have been found to be useless in many parts of the province, and have been abolished; they only exist at present in seven districts. In nine districts, most of which are situated on or near the frontier, the district boards are composed entirely of nominated or ex-officio members. The working of the district boards was generally satisfactory, and the members showed much interest in such matters as scarcity, plague, the breeding of cattle, and the preservation of trees. The year's income of the district boards, apart from loans and advances, came to £198,800, of which the chief items were £145,200 from local rates and £22,100 from civil works. The expenditure of the year was £188,600, of which the chief items were education, £43,900, medical and sanitary charges, £29,700; and roads and other public works, £53,400. The larger part of the plague charges has now been undertaken by the Government, provision being made that no district board shall be burdened beyond its capacity with this expenditure. The closing balances of the district funds taken together amounted to £65,300, compared with £54,900 at the end of 1901–02.

Punjab.

In the Central Provinces district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 17 and 55 respectively. The number of meetings held by councils and boards was satisfactory, but the working of the local boards has not much vitality at present. The income of the district funds amounted to £69,100, excluding debt heads, while the expenditure, also excluding repayment of loans, &c., was £67,500. The chief source of income, as in other provinces, is the provincial rates, but receipts from cattle pounds constitute a much higher proportion of the total in the Central Provinces than elsewhere. The expenditure included £27,900 on education and £21,500 on public works; the former item shows a considerable growth, as a special grant was made by the Government of India for expenditure on primary schools.

Central Provinces.

DISTRICT BOARDS.

Assam.

In Assam there were 19 local boards, constituted under a Regulation of 1879, modified by executive rules, and except in three districts the members are nominated. A special feature of their constitution is the presence of a large proportion of Europeans among their members, representing the planting community. It was considered by the Local Government that the boards required closer supervision and control from without, and arrangements were accordingly being made for periodical inspection by the Deputy Commissioners or the Commissioner. The income of the boards, apart from debt heads, was £79,200; the local rates, which are assessed generally at one sixteenth of the land revenue, realised £45,700. The boards spent £66,100; nearly 60 of the total expenditure was devoted to public works, and 22 per cent. to education. The closing balances amounted to £25,500.

Madras.

In Madras there were 21 district boards and 80 taluk boards, and the number of village unions was 379. The taluk or subdivisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents. The village unions deal chiefly with local sanitation, though in some cases they have the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £643,800. The chief item is the land cess, levied at rates varying from one to two annas per rupee of the land revenue assessment, which yielded £13,600 more than in the previous year. The above figure includes also grants from provincial revenues amounting to £50,800, chiefly for education and public works. The expenditure of the boards, also excluding the heads mentioned above, amounted to £654,600, or nearly 2 per cent. less than in 1901–02. The chief items of expenditure were £262,800 on public works and £71,800 on medical and sanitary purposes. About one half of the expenditure is controlled by the taluk boards. The Mayaveram-Mutupet Railway, which belongs to the Tanjore District Board, brought in a net profit of 5·4 per cent. on the capital outlay. It was extended to Padukottai during the year.

Bombay.

In Bombay and Sind there were 24 district and 207 taluk (or sub-divisional) boards, nearly all of which are partly elective. The income of the local boards, excluding debt heads, was £325,000, of which £158,300 was derived from provincial rates and £115,500 from Government contributions. The rates showed a smaller total than in the previous year, owing to the partially unfavourable circumstances of the year; but the total income was higher, owing to large special grants, amounting in the aggregate to £50,000, made by the Government to many of the district boards for medical and educational purposes. The expenditure of the boards, also excluding debt heads, was £297,700, including £106,800 on education, £144,600 on civil works, and £19,000 on medical objects. The actual balances at credit of the boards, which owing to the disorganisation by famine and plague were reduced at the end of the year 1900-01 to £75,700, stood at £127,500 at the end of 1902–03. The boards are gradually recovering the ground lost during the famine, by the help of the Government; many works of utility which owing to lack of funds had been left unfinished or postponed have been carried out, and substantial progress has been made in connection with education.

Berar.

In Berar there were six district and 21 taluk or sub-divisional boards. No interest is displayed in the elections to the taluk boards, and a proposal has been made to change the time of year at which they are held. All the boards held the required number of meetings, and there was a slight improvement in the attendance of members. The income of the district boards, apart from loans and advances, was £48,000, of which £22,700 accrued from rates, and £7,400 from a license tax on non-agricultural incomes exceeding Rs. 100. The expenditure, also deducting debt heads, was £37,200, of which £12,800 was spent on education. It is reported that the members of the boards take a growing interest in the duties committed to them, and have been useful in explaining to the people the efficiency of the measures to be adopted against the outbreak or spread of plague.

There are no local boards in Burma or Coorg. Their place is taken in Burma to some extent by the district funds under the control of Government officers.

## Port Trusts.

Port Trusts.

The custody of the harbours and the administration of harbour and shore affairs in the more important ports are placed by various legislative acts in the hands of Port Commissioners. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties.

Bombay.

Exports of grain, oilseeds, and manganese ore from Bombay were large; those of raw cotton were rather lower than in 1901–02, though much above other recent years. Among imports, petroleum and coal both show figures which are lower than the large amounts exported in 1901–02. The net result to the Bombay Port Trust was a rise in their revenue, which amounted to £394,500, a record figure. The receipts for wharfage fees and dock dues were £193,400, and from other sources, such as port dues, warehouse fees and rents, &c., £201,100. The total number of square-rigged vessels entering the port was 2,262, of 2,641,000 tons, against 2,154 of 2,549,000 tons in the preceding year. The expenditure amounted to £366,600, including £170,300 for interest and sinking fund charges, £40,800 for the working and maintenance of the bundar properties, and £93,900 for that of the Prince's and Victoria Docks. These docks, on which rather more than 1½ millions had been spent up to the end of the year, yielded in 1902–03 a net return of £91,300. The debt of the Trust amounted at the end of the year to £3,727,600, including £90,000 raised at 4 per cent. during the year for expenditure on capital works. About two millions of this is owed to Government, and the remainder consists of foreshore securities and debenture loans. The properties vested in the Board are valued at £3,914,000, and various depreciation, reserve, and sinking funds amount in the aggregate to £382,500.

Calcutta.

The receipts of the Calcutta Port Trust were £515,200, which is rather better than in 1901–02, and the highest on record; the expenditure was £484,700, including the Kidderpore Dock Account and payments for interest and sinking funds. The surplus of £30,500 was added to the Revenue Reserve Fund, which stood at £111,700 at the end of the year. Having regard to this position, the Commissioners have reduced the charges on trade and shipping for 1903–04 by an estimated amount of £14,200, which, added to previous concessions, makes a total reduction of about £27,000 in the annual charges since July 1902. The jetties yielded a surplus of £42,500, and the petroleum wharf £16,300. The receipts from the Kidderpore wet docks were £146,000, there having been a decrease in the amount of coal, tea, and jute shipped from the docks; the working expenses were £146,600, showing a slight net profit, apart from interest charges. If the small figures for the dry dock are included, and interest charges taken into account, the net deficit shows as £89,500 for the year. The debt on account of the docks was £2,360,000, and the annual recurring deficits up to the end of 1902–03 make a total of £907,000. The proposal to transfer the import trade, in whole or in part, from the jetties to the docks, has not found favour, owing to the disturbance which such a change would occasion. The loss on the docks will continue, therefore, to be met from profits on other portions of the property of the Trust. The chief improvements in progress were the construction of a second dry dock, purchase of a tug, reclamation work and provision of new sheds. The sum expended during the year on capital works was not large, yet considerable progress was made in schemes for

PORT TRUSTS.

developing the Trust's resources on a comprehensive plan, designed not only to afford the facilities immediately required, but also to form part of the general scheme of improvement of the whole port. The number and tonnage of vessels berthed in the port in recent years is shown in the margin. In both respects the year's figures are below those of 1901–02. The outstanding debt of the port, including the dock loan of £1,918,000, amounted at the end of the year to £3,134,000, of which £2,165,000 was due to the Government and the remainder to debenture holders. Against this are to be set £253,600 at credit of sinking funds, and value of properties £3,965,000 besides the valuable Strand Bank lands held from the Government.

| Year. | No. | Net Tonnage. |
|---|---|---|
| 1898–99 | 1,203 | 2,350,900 |
| 1899–1900 | 1,179 | 2,425,800 |
| 1900–01 | 1,412 | 2,939,900 |
| 1901–02 | 1,347 | 2,937,300 |
| 1902–03 | 1,309 | 2,884,600 |

Rangoon.

The receipts of the port of Rangoon were £103,300, and the expenditure £95,800. The year closed with a balance of £50,400, and the total amount of the debt of the Commissioners was no more than £16,300. There was a slight falling off in the revenue derived from the Strand Bank properties, as compared with 1901–02, but there was a large increase under the Port Department, due to vessels of larger tonnage entering the port. The total import trade of the port was higher than in 1901–02 or any previous year, though the imports from foreign countries showed a slight fall; exports were also unprecedentedly high. The net tonnage of seagoing vessels entering the port was 1,966,000 tons, against 1,741,000 tons in 1901–02, and consisted almost entirely of steamers, the number of which rose from 1,168 to 1,194; 222 steamers of tonnage exceeding 4,000 tons entered the port, compared with 156 in the preceding year and only one in 1890–91. A new line of steamers running between Hamburg and Rangoon has been established within the last few years, and accounts to some extent for the increase in entries. The scheme for the new port works was approved by the Local Government early in 1902, and during the year under review a detailed plan was submitted for the execution of the first part, namely, extension of the Latter Street wharf and reclamation of part of the foreshore, which it was expected would be completed by the end of 1904. These works were estimated to cost £275,000. The whole scheme will cost about £617,000, which will be raised by public loans. A loan for £67,000 at 4½ per cent. has now been floated at a premium, and the work is being begun.

Madras.

The ordinary expenditure of the Madras Harbour Trust was £40,100, and its receipts were £48,500, excluding debt headings in either case. Taking into account payments from revenue to capital account, and the exceptionally large repayments of capital advances, as well as a decrease in the receipts owing to the operation of a reduced scale of tonnage rates, the total result was a decline in the balance from £77,000 to £60,900. The outstanding indebtedness to Government at the end of the year amounted to £277,000. The Government has reduced the rate of interest from 4½ per cent. to 4 per cent. There was a further small increase in the steam tonnage entering the port, to 1,241,000 tons. The proposal referred to in last year's Statement, to close the eastern entrance of the harbour and to open a new one in the north arm, was considered by a committee of experts appointed by the Secretary of State, and was approved by them. Steps have been taken to give effect to their proposals.

Karachi.

The year under review established a fresh record in respect of the Karachi Port Trust, the accumulated income from revenue resources rising to £103,700, and showing an excess over the expenditure of £28,800, of which £15,800 was spent on revenue works and £4,700 in liquidation of capital debt. The successful year was mainly due to the unprecedented export trade in wheat. Special works of restoration were necessitated by the disastrous cyclone of June 1902, in spite of which the efficiency of the port remained unimpaired. The new village of Keamari was more than half completed by the close of the year, and the undertaking has already justified itself. The capital liabilities of the Trust stood at £353,800 at the end of the year, debt to the amount of £4,700 having been paid off during the year.

There are other minor ports at which smaller sums are raised yearly and expended on improvements, but these do not require notice.

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1902–03.

| | Bengal. | | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | | Bombay. | | Berar.* | Minor Provinces. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Presidency Corporation. | District Municipalities. | | | | | | | Presidency Corporation. | District Municipalities. | Presidency Corporation. | District Municipalities. | | | |
| Number of Municipalities | 1 | 159 | 104 | 137 | 10 | 42 | 46 | 14 | 1 | 60 | 1 | 166 | 12 | 9 | 762 |
| Population with municipal limits | 847,796 | 2,850,000 | 3,235,449 | 2,094,799 | 186,375 | 889,524 | 704,638 | 94,982 | 509,346 | 1,903,890 | 776,006 | 2,376,275 | 201,982 | 127,429 | 16,798,491 |
| Receipts : | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Octroi | — | — | 197,931 | 193,605 | 25,099 | — | 55,541 | — | — | — | 107,546 | 174,347 | — | 22,106 | 776,175 |
| Other Taxation | 344,852 | 224,576 | 78,202 | 25,657 | 392 | 154,495 | 20,644 | 7,994 | 72,061 | 126,011 | 364,360 | 126,442 | 6,109 | 2,298 | 1,554,033 |
| Revenue sources other than Taxation | 53,923 | 58,576 | 94,407 | 110,005 | 8,486 | 183,926 | 23,423 | 7,754 | 31,713 | 69,764 | 73,200 | 96,641 | 5,338 | 8,511 | 825,667 |
| Extraordinary and Debt | 149,054 | 46,880 | 22,571 | 47,096 | 1 | 316,555 | 8,842 | 39 | 65,337 | 69,994 | 1,887,371 | 47,995 | 151 | 1,070 | 2,662,956 |
| Total (1902–03) £ | 547,829 | 330,032 | 393,111 | 376,363 | 33,978 | 654,976 | 108,450 | 15,787 | 169,111 | 265,769 | 2,432,417 | 445,425 | 11,598 | 33,985 | 5,818,831 |
| Corresponding Total (1901–02) £ | 662,152 | 303,823 | 381,389 | 331,890 | 44,637 | 433,278 | 105,294 | 16,427 | 147,306 | 234,182 | 2,265,799 | 514,654 | — | 34,446 | 5,475,277 |
| Expenditure : | | | | | | | | | | | | | | | |
| Cost of Collection and Administration | 42,339 | 28,689 | 45,080 | 46,210 | 3,652 | 34,004 | 28,182 | 1,260 | 7,566 | 17,178 | 39,666 | 105,502 | 851 | 7,101 | 407,280 |
| Public Health and Convenience | 296,119 | 204,728 | 220,500 | 182,411 | 15,411 | 341,475 | 54,273 | 12,660 | 69,229 | 176,322 | 265,693 | 174,365 | 4,850 | 11,389 | 2,029,425 |
| Public Safety | 35,947 | 20,138 | 46,398 | 47,689 | 6,045 | 18,938 | 1,635 | 675 | 5,026 | 7,775 | 64,277 | 15,410 | 349 | 3,228 | 273,530 |
| Public Instruction | 1,201 | 9,160 | 15,976 | 39,691 | 3,403 | 23,880 | 10,223 | 637 | 1,587 | 25,634 | 7,365 | 49,753 | 1,587 | 1,954 | 190,501 |
| Interest and Miscellaneous | 128,082 | 19,874 | 59,126 | 30,129 | 3,413 | 34,866 | 6,602 | 849 | 24,339 | 15,789 | 197,209 | 44,376 | 875 | 5,686 | 571,215 |
| Extraordinary and Debt | 118,578 | 34,282 | 16,292 | 26,618 | 83 | 115,832 | 12,505 | 64 | 42,200 | 27,511 | 1,863,041 | 54,380 | 252 | 2,967 | 2,314,605 |
| Total (1902–03) £ | 622,266 | 316,871 | 403,372 | 372,748 | 32,007 | 568,995 | 113,420 | 16,145 | 149,947 | 270,209 | 2,437,251 | 443,786 | 8,764 | 32,325 | 5,788,106 |
| Corresponding Total (1901–02) £ | 614,681 | 303,744 | 356,834 | 322,506 | 33,012 | 414,108 | 101,847 | 15,732 | 150,154 | 254,940 | 2,278,207 | 489,925 | — | 32,281 | 5,367,971 |

* From 1st October 1902 only.

# CHAPTER IIA.

## VITAL STATISTICS AND SANITATION.

### VITAL STATISTICS.

VITAL STATISTICS.

*(Detailed information on the subjects treated in this chapter is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper; and a brief review only is given in this place.)*

European troops.

The health of the European troops in India in 1902 was not quite so good as during the previous year, for though the admission rate, the constantly sick rate, and the invaliding rate were all slightly lower than in 1901, the death-rate was considerably higher. The following table gives details :—

| Year. | Average Strength. | Ratio per Mille of Strength. | | | |
|---|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths. | Invaliding. |
| 1891-1900 (10 years' average) - | 68,224 | 1,399 | 87 | 16·21 | 29 |
| 1901 - - - - | 60,838 | 1,104 | 67 | 12·38 | 39 |
| 1902 - - - - | 60,540 | 1,078 | 66 | 14·68 | 37 |

The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 26 and 23 per cent. respectively of the total sickness. The ratio of admission on account of the latter disease, 247 per mille of the strength, as well as the admission rates for simple continued fever, influenza, and respiratory diseases, was considerably lower than in 1901; venereal diseases showed an admission rate of 281 per mille, against 276 per mille in 1901, 298 in 1900, 313 in 1899, 363 in 1898, and 486 in 1897. Enteric fever and hepatic abscess were the chief causes of mortality, showing a death-rate of 4·29 and 1·85 per mille respectively, in each case a higher rate than in the preceding year. Enteric fever alone caused 29 per cent. of the total deaths, 1,012 admissions and 260 deaths being due to this disease, compared with 776 admissions and 202 deaths in 1901; but it was much less prevalent than in 1898, when the death-rate from that cause alone was 10·17 per mille. As usually observed, the greatest liability to suffer and die from enteric fever was between the ages of 20 and 25, and during the first year of Indian service; in 1902 the liability of men under one year's service to fall sick from enteric fever was at least twice as great as in any other period of service. Among troops between the ages of 20 and 25 the death-rate from this disease was 7·06 per mille, while among men between the ages of 25 and 30, 30 and 35, or 35 and 40 the mortality equalled 2·91, 1·92, and 1·87 per mille respectively. There was only one death from plague, and only three deaths from cholera, during 1902.

The loss by invaliding during 1902 amounted to 2,255 men, equal to 37·25 per mille of strength, against 2,393, or 39·33 per mille, in 1901. Venereal diseases were the cause of invaliding in nearly 14 per cent. of the number of cases, and the next most important cause was malaria. The percentage of men invalided while under 25 years of age to the whole number invalided was 35, and 17 per cent. of the total number invalided had less than two years' service.

Native troops.

The health of the Native troops in 1902 was, on the whole, better than in 1901, though there was a slight increase in the total death-rate. The details are given below.

| Year. | Average Strength. | Ratio per Mille of Strength. | | |
|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths (including deaths during absence). |
| 1891–1900 (10 years' average) - - | 127,666 | 852 | 32 | 16·62 |
| 1901 - - - - - - | 122,806 | 820 | 30 | 13·89 |
| 1902 - - - - - - | 124,231 | 718 | 27 | 15·01 |

The native soldier suffered less than the European from enteric fever, simple continued fever, hepatic affections, and venereal diseases, and more from fevers, lung affections, and other diseases. The admission rates for the year were higher than in 1901 in respect of enteric fever, tubercle of the lungs, pneumonia, and dysentery, and lower for other respiratory diseases, ague, and some other headings. Ague continued to rank first among the causes of admission, and accounted for 38 per cent. of the total. Pneumonia, as usual, was the chief cause of death, 33 per cent. of the deaths being due to this disease; while intermittent and remittent fevers accounted for 18 per cent. The death-rate from cholera was low. The death-rate from enteric fever among the Native troops was only 0·1 per mille, as compared with 4·29 among the European troops. The deaths from plague during 1902 numbered 95. The rate of admission to hospital for venereal diseases was 33 per mille.

Jails.

The health of the jail population in 1902 was good. The ratio of admissions to hospital was 913 per mille; the chief causes were dysentery and diarrhœa, which between them accounted for 16 per cent. of the admissions, and ague, which was the cause of 41 per cent. The death-rate was 24·8 per mille, compared with 25·3 in the previous year; it ranged from 17·2 in the inland jails of Burma to 42 in the Andamans. The chief causes of death were dysentery, tubercle of the lungs, and pneumonia. There were only 20 deaths from plague, and there was very little cholera or small-pox. The jail death-rates in Bengal (25·5 per mille), Burma (15·9), the United Provinces (20·5), the Punjab (24·8), Madras (17·8), Bombay (28·2), and the Central Provinces (24·8) all show an improvement as compared with 1901, the Burma rate being, as usual, the lowest of all provinces.

General population.

The accuracy of the birth and deaths statistics collected with regard to the general population is said to be improving, although the improvement is by no means uniform and much remains to be done. The provincial death-rates are compared in the marginal table. In every important province, except Madras and Burma, the death-rate was higher than in the preceding year, and in every province, except Assam, where the towns are merely large villages, the urban were higher than the rural death-rates. The death-rate for the whole of India was 31·49 per mille, compared with 29·46 in 1901.

DEATH RATES.

| — | 1901. | | | 1902. | | |
|---|---|---|---|---|---|---|
| | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal - - | 30·7 | 37·1 | 31·0 | 33·3 | 36·0 | 33·4 |
| Assam - - - | 27·8 | 29·7 | 27·8 | 29·0 | 28·5 | 29·0 |
| United Provinces - | 29·3 | 42·9 | 30·3 | 31·5 | 46·7 | 32·5 |
| Punjab - - - | 36·0 | 37·7 | 36·1 | 43·5 | 49·4 | 44·1 |
| North-West Frontier Province. | 19·3 | 18·3 | 19·2 | 24·1 | 27·6 | 24·4 |
| Central Provinces - | 23·0 | 28·5 | 23·5 | 25·2 | 32·4 | 25·8 |
| Berar - - - | 27·2 | 29·6 | 27·6 | 32·0 | 36·6 | 32·8 |
| Madras - - | 20·4 | 32·7 | 21·3 | 19·3 | 28·2 | 20·2 |
| Coorg - - - | 34·9 | 53·2 | 36·5 | 26·1 | 36·9 | 27·1 |
| Bombay - - | 34·0 | 57·8 | 37·1 | 35·8 | 60·2 | 39·0 |
| Burma { Lower - | 20·6 | 30·0 | 21·7 | 20·0 | 29·9 | 21·2 |
| Burma { Upper - | — | 33·3 | 33·3 | 15·8 | 29·9 | 17·3 |
| Ajmere-Merwara - | 30·9 | 39·1 | 33·1 | 29·9 | 40·8 | 32·9 |

Registered deaths from cholera in British India were considerably fewer than in 1901, and gave a rate of 1·01 per mille of the population under registration. As compared with the year 1900, when the number of cholera deaths was 797,200, and the death-rate from this cause was 3·7 per mille, the number for 1902, namely 224,100, showed a great decrease. It was

VITAL STATISTICS.

most prevalent during the year in Assam, Bengal, and Madras. The number of deaths from plague forms the subject of a separate section at the end of this chapter. Fevers are returned as having caused 4¼ million deaths, or a ratio of 19·2 per mille. The mortality rate from bowel complaints was low, only 1·1 per mille.

In every province except Lower Burma the birth-rate in 1902 was higher than in the preceding year; in most provinces the increase was considerable, and in two, Berar and Ajmere-Merwara, enormous. In every province except three the number of recorded births exceeded the deaths. In the Punjab, where the plague death-rate was 8·5 per mille, the death-rate was ·3 per mille higher than the birth-rate, and in Bombay, where the plague death-rate was 10 per mille, there was a similar excess of 4·9 per mille in deaths over births. The other exception was the small province of Coorg. The birth-rate for the whole of India was 39·4 per mille, compared with 34·6 in 1901.

BIRTH RATES.

| — | 1901. | 1902. |
|---|---|---|
| Bengal | 38·6 | 40·1 |
| Assam | 34·0 | 34·2 |
| United Provinces | 41·3 | 45·8 |
| Punjab | 35·4 | 43·8 |
| North-West Frontier Province. | 29·5 | 33·6 |
| Central Provinces | 28.8 | 48·3 |
| Berar | 30·8 | 56·9 |
| Madras | 25·1 | 28·2 |
| Coorg | 18·8 | 23·9 |
| Bombay | 25·2 | 34·2 |
| Burma { Lower | 32·1 | 31·6 |
| Burma { Upper | 37·7 | 38·0 |
| Ajmere-Merwara | 16·1 | 36·1 |

The total number of vaccinations performed among the civil population during 1902–03 was 8,432,000, being an increase of 395,000 on the previous year's work. Of primary vaccinations 95 per cent. were successful, and 65 per cent. in the case of re-vaccinations, 33 per mille of the population having been successfully vaccinated. The number of infants successfully vaccinated was 3,707,600, and of children between one and six years of age 3,160,400.

Vaccination.

## SANITATION.

SANITATION.

Some of the important sanitary works which have been completed or were in progress, or under consideration, during 1902–03 were as follows:—

BENGAL.

Calcutta.

In Calcutta the two chief works which the Corporation have in hand are the suburban drainage scheme and the continuous water supply scheme. The former of these has been brought, by the efforts of the new Corporation, out of the state of confusion into which it had drifted, and has been sanctioned in a remodelled form. It is to be executed under eleven separate contracts, in eight of which work was begun during 1902–03, while tenders had been invited for the remainder. Other main drainage schemes are in contemplation, and the surface drainage of the suburbs will claim attention after the execution of the main drainage scheme mentioned above. The work of converting the intermittent into a continuous filtered water system had been in progress for a year, and the improved system had been extended over a portion of the city containing 126,000 inhabitants. The average consumption of filtered water in the city per head of the population was 24·23 gallons, which was very slightly in excess of the consumption of the preceding year. The birth-rate of the town is returned at 14·2 per mille, the death-rate as 37; probably many births escape registration; the death-rate was raised by an epidemic of plague.

During the past three years the Corporation have vigorously pursued the policy of mending or ending obnoxious "bustees," or collections of huts, while at the same time they have opened out insanitary areas by constructing a number of public squares and making new roads or widening old ones. But overcrowding, with its concomitant circumstances, is a great evil in the city. The census of 1901 disclosed a very serious increase in the number of population per acre in many wards, accompanied by a very high death-rate. The Corporation have created a building department, and have taken into consideration the problem of the expansion of the city by finding space for new suburbs on the north and south, connected with the city by new and cheap tramway communications.

Interior of Bengal.

The municipalities of the interior of Bengal spent more than 46 per cent. of their total receipts on sanitation in the financial year 1902–03. No new work of first-class importance was either begun or finished during the year,

but drainage schemes were being prepared for many municipalities, including Howrah, Dacca, Berhampore, Garden Reach, Maniktola, and Cossipore-Chitpur. As regards schemes for water supply, heavy outlay was incurred on the works at Darjeeling and on the extension of the filtered water supply from the Calcutta mains to the Garden Reach municipality. Seven towns in the province, besides Calcutta, have waterworks of their own, namely, Howrah, Burdwan, Berhampore, Dacca, Nasirabad, Arrah, and Bhagalpur. SANITATION.

In the United Provinces municipalities the expenditure on sanitary objects was higher than in the preceding year. The increase under waterworks was due to improvements in the waterworks of Mussoorie, Agra, Cawnpore and Benares. Capital expenditure on drainage was nearly twice as large as in the previous year. The Cawnpore scheme was nearly completed, and good progress was made at Lucknow, with the aid of the Government grant of £6,700. Muzaffarnagar and Aligarh began the operations for which they had borrowed money, and the efficient system of drainage in Farrukhabad was further extended. In regard to rural sanitation, many districts, particularly in the Meerut, Rohilkhand, and Allahabad divisions, failed to utilize the full sums allotted for the purpose; but in many cases action is taken to improve and repair wells, under the Village Sanitation Act, at the cost of the villagers, without help from the district board. United Provinces.

Plague was again very prevalent in many of the municipalities of the Delhi, Jullundur and Lahore divisions of the Punjab in 1902–03, but only appeared in two municipalities of the Rawalpindi division and in three of the Mooltan division. The survey portion of the Hansi drainage scheme has been completed, as has also the extra-mural portion of the drainage scheme at Umballa. The Delhi intra-mural drainage scheme was being proceeded with; and it was in contemplation to raise a local loan of £36,400 to meet the cost. The Delhi waterworks have been finished, and the city is now adequately supplied with pure water. Measures for the improvement of the water supply of Simla, Umballa and Kalka, were being taken in hand. Considerable progress was made with the construction of the Amritsar waterworks. The capital expenditure on water supply and drainage works from municipal funds was £48,600 in 1902–03, against £18,400 in the preceding year, owing to expenditure, in addition to the items mentioned above, on the water supply at Lahore, and drainage at Lyallpur. The system of village sanitary notebooks is in force in every district, and is found to be of considerable value. In the Jullundur district a system of village sanitation in the larger villages has been initiated by the Board, under which sweepers are employed to clean the village streets and are paid in the same way as the village watchman. Punjab.

The municipal expenditure on water supply in Burma amounted to £33,500, a large part of which was spent on the Moulmein waterworks, now approaching completion. This scheme is an extensive one, and met with some opposition, but it is expected to have favourable results on the health of the town. At Prome also, a considerable amount was spent on improvement of the existing waterworks. The Mandalay scheme was suspended, and the Myingyan scheme has been abandoned for the present. Plans were also under consideration for giving a water supply in Akyab, Yamethin and Minbu, and tube wells were being sunk at Mandalay and other places. The expenditure under drainage was small, and was almost confined to minor sanitary improvements in Prome. In rural areas something, but not very much, is done in respect of village sanitation by expenditure from the small district cess funds. Village sanitation notebooks are in general use, and by their aid permanent sanitary records are to be kept. BURMA. Interior.

The work of reclaiming and draining East Rangoon was continued during the year 1902–03, and several blocks of houses were prepared for the indigent inhabitants of insanitary areas about to be reclaimed. The health officer gives it as his opinion that the only remedy for the insanitary conditions prevailing in the riverain suburbs is the raising and grading of every house site to drain into properly constructed masonry surface drains. The reclamation scheme is to be financed by the cession by the Government of the townland rents for a period of 50 years to the municipality. The Rangoon.

SANITATION. main drainage of the city is on the Shone system, and its working was improved by the extraction of a large quantity of silt near the outflow, and by the installation of stronger engines. The two sources of the water supply were formerly the Royal and the Victoria Lakes. But the supply from the former has been so bad that in 1900 its use for domestic purposes was discontinued. Owing to the delayed rainfall the supply from the Victoria Lake was restricted during the summer months. The Hlawga water supply scheme, which is being carried out to augment the present supply from Victoria Lake, at a cost of about £233,000, is well in hand. About three-fourths of the reservoir is finished, and water to half tank level was stored during the rains of 1903. The birth-rate of the town is given as 15·21 per mille in 1902, and the death-rate was 36·2 per mille.

Central Provinces. The main feature of the year 1902–03 in several of the most important of the municipalities of the Central Provinces was the appearance of plague. In consequence of the strain which this placed upon the resources of the municipalities, notably in Jubbulpore, large measures of improvement were brought to a standstill except in Nagpur, Harda, and Seoni, where some progress in respect of water supply was effected, and in Sambalpur, where the drainage scheme was pushed forward, and it was anticipated that it would be completed in the ensuing year. Village sites were cleared and cleaned in the ordinary way during 1902, but special measures in respect of sanitation were deferred to the following year, in which a special grant was allotted for this purpose.

Assam. The municipalities of Assam are small, and cannot afford costly works for a water supply, which has generally to be provided by the construction of wells and tanks, as funds permit. Excluding four towns which have no separate incomes of their own, the municipal authorities spent 54 per cent. of their income on sanitary objects in the year 1902. The sanitary improvements effected in rural tracts were chiefly in the direction of providing a purer water supply by the construction or repair of masonry wells and the excavation of tanks at some of the larger villages.

MADRAS. Madras City. In Madras city good progress was made during 1902–03 with the scheme for providing a system of drainage, and the cast-iron main running from the north to the south of the city was nearly completed. The quantity of water supplied from the Red Hills Lake was about 1 per cent. greater than in the previous year; and the level of the lake was about 3 inches higher at the close of the year than at the beginning. When the drainage has been put in order there will be much to do for the improvement of the water supply, both in quantity and quality; though the latter was reported by the analyst to be "satisfactory on the whole" during the year under report. The birth-rate of the town was 34·8 per mille, and the death-rate was 42 per mille.

Interior of Madras. The district municipalities in the Madras Presidency executed no new drainage works of importance during the year, and the scheme for the drainage of Madura was still under the consideration of the municipal council. The Vizagapatam waterworks were being carried out, and the construction of the Tiger Hill reservoir in Ootacamund and the scheme for the water supply of Cocanada were completed, while water supply schemes for Coonoor, Guntur, Dindigul, Tiruvannamalai, and Negapatam were under consideration. The municipal expenditure on public health amounted to £140,100, of which £54,000 was capital outlay and £53,100 was spent on conservancy. The outlay on sanitation by local boards in Madras rose to £33,900, the greater part of which is expended on conservancy of towns and villages. There is no Village Sanitation Act in the presidency, the work being carried out so far as possible by expenditure from the available funds of local boards.

BOMBAY. Bombay City. Apart from the Bombay Improvement Trust, which is mentioned in treating of the municipality, no very important works were in progress during 1902–03 in the city of Bombay. Considerable progress was, however, made with the sectional sewerage works which are in hand. The channel for the new subsoil and surface drainage of the lower parts of the city has;

after some discussion, been fixed, and a new outfall has been sanctioned at Worli. The work was to be put in hand shortly. The rainfall at the three lakes—Tansa, Vehar, and Tulsi—which furnish the water supply of the city was rather below the average. The quantity drawn from these lakes and reaching the consumer is about 36 million gallons a day. The birth-rate is given as 22·67 per mille; the death-rate was 62·38, which, though a very high figure, was the lowest since 1897. The number of deaths from plague during 1902 is given as 13,800, which equals 17·81 per mille, but is much lower than the number in the preceding year. SANITATION.

In the other municipalities of the Presidency the large expenditure on plague precautions continued to check the prosecution of sanitary works. Public works of the usual character are required in some form or other in almost every municipality. In one or two large towns, Poona for instance, where a constant water supply has been provided, drainage schemes are urgently required. Many need an improved water supply. During the year 1902–03, the capital outlay on water supply and drainage amounted to £14,900; and the total municipal expenditure on public health, including conservancy, was £133,200. The chief items of expenditure on new schemes were £8,400 on drainage at Allahabad, and a smaller sum at Poona in connection with the Manjri experimental farm. The extension of the Village Sanitation Act has been interfered with by the famine and plague, which have claimed the attention of district officers in recent years. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the collector of the district or by the Local Government, to supervise sanitary matters. Interior of Bombay.

No public sanitary works of any importance were carried out by the Berar municipalities during the year, as their operations were hampered by the presence or the fear of plague epidemics, which entailed exceptional expenditure. In Karanja, however, steps have been taken to provide funds for a drainage scheme, and Ellichpur city and Amraoti town were devising means for the improvement of their water supply. Little could be done in the way of rural sanitation, apart from the clearing of village sites and the improvement, where possible, of the well-water supply. Berar.

## Hospitals, Dispensaries, and Leper Asylums.

There are in India, besides the large hospitals in presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces for which no statistics are available; and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. The latter, however, is as yet still in the position of an experiment.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with 752 beds and a daily average of 445 in-patients in 1902, the Sir J. Jijibhoy hospital in Bombay city with 339 beds, the Government General hospital at Madras with 473 beds, the Mayo hospital at Lahore with 221 beds, the Rangoon General hospital with 461 beds, and others. The expenses are met to a large extent by the State, especially in the Presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £60,700 towards a total expenditure of £79,800; in Bombay city, £17,900 out of £28,500; in Madras city, £22,900 out of £28,900. Elsewhere, however, the chief contributions are from local funds; of the £73,500 received by the Madras dispensaries in the interior, £61,600 came from local funds; in Burma, out of £57,200, nearly two-thirds came from local funds; and so on. Private subscriptions do not form a large proportion of the receipts; in Bengal they amounted to £25,500, chiefly from native donors, including about £1,200 subscribed in Calcutta, and in the United Provinces to £9,800; elsewhere the amounts were smaller.

HOSPITALS, &C.

The year under notice shows a continued increase in the number of patients in attendance at the hospitals and dispensaries in most provinces, though in Bombay and the Central Provinces the improved health conditions of the year led to a decline. There is, however, an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries.

At the Government leper hospital, in Madras, 576 patients were under treatment during the year 1902, and 594 patients were treated at the Homeless Leper Asylum in Bombay. But besides the cases admitted to, or treated at, special leper hospitals or asylums, a large number of leprosy cases are dealt with each year at the dispensaries. The census of 1901 shows a decline in the number of lepers to 97,310, compared with 126,244 in 1891, and the proportion works out to 48 male and 17 female lepers in every 100,000 of the population. Berar has the largest proportion of lepers (2 per mille), followed at some distance by Assam, Bengal, the Central Provinces, Burma, Madras, and Bombay, in that order.

## LUNATIC ASYLUMS.

LUNATIC ASYLUMS.

The treatment of lunatics at asylums prevails only on a small scale in India. In comparison with European countries insanity appears to be infrequent in India, and the census of 1901 showed a decrease of nearly 11 per cent. in the number of insane since 1891. The decrease occurred in nearly every province, and was explained in many of them by the probability that the insane would suffer more than the general population in years of scarcity of food.

In Bombay there are seven lunatic asylums, at which 797 lunatics were under treatment at the end of 1902; in Bengal, there are six asylums, with 1,033 patients, more than half of them being criminal lunatics; in the United Provinces, four asylums, with 1,136 patients at the end of 1902; three asylums, with 574 patients, in the Madras Presidency; two, with 317 patients, in the Central Provinces; and one each in the Punjab, Burma, and Assam, with 503, 415, and 154 lunatics respectively.

## PLAGUE.

PLAGUE. 1902.

The mortality from plague during the year 1902 showed a very large extension. The recorded deaths from the disease had amounted in 1899 to 139,000, to 92,800 in 1900, and to 283,000 in 1901. In the year 1902 they were more than double that high figure, and stood at 583,900, a mortality which somewhat approaches that which cholera is wont to occasion in years in which that disease is active. The month of highest mortality, as in the two preceding years, was March, when 110,700 plague deaths were recorded, and the minimum was returned in June, when the number was only 6,600.

All the provinces of India were more or less affected by plague in 1902, except Assam, Burma and Coorg, where no plague deaths were recorded, and the North West Frontier Province and Ajmere-Merwara, where the numbers were only four and one respectively. In Bengal there was a nominal decrease from 78,600 deaths in 1901 to 33,000 in 1902, though probably many other deaths, recorded under fevers, were in reality due to this disease. The plague death-rate in Calcutta was 8·58 per mille in 1902, against 9·29 per mille in the preceding year. In the United Provinces plague was much more prevalent, the deaths rising to 43,500; the plague death-rate at Cawnpore was 36·69 per mille of the population. The Punjab also showed a great increase in plague, no less than 175,600 deaths being recorded as due to this cause. The disease was confined chiefly to the central and thickly populated portion of the province. In the Ludhiana district the plague death-rate was 71 per mille, and instances occurred in 22 villages of that district in which the enormous death-rates of from 20 to 40 per cent. of the population were registered. The Punjab Government undertook, with the sanction of the Government of India, a scheme for plague inoculation on a great scale. Seven millions of persons were to be

inoculated, by the combined efforts of all the available medical establishment and of 37 doctors specially engaged in England. But the scheme was unfortunate from the beginning. Owing to the magnitude of the demand, the manufacturing laboratory was not at first able to supply the quantity of prophylactic required, and the commencement of operations had to be deferred until the 1st October, a month later than the intended date; and a deplorable catastrophe at Mulkowal, where, early in November, 19 persons died of tetanus after inoculation from a bottle of the fluid, brought operations to a standstill, less than half a million inoculations having been performed. The result of the campaign, so far as it went, showed that deaths bore a proportion of 24·8 per cent. to attacks among inoculated persons, while the corresponding percentage for the whole number of cases reported, inoculated and uninoculated together, was 59·8 per cent. Plague appeared for the first time in Berar during 1902, and caused 4,200 deaths. In the Central Provinces and Central India there was no general epidemic. In Madras, and the Mysore and Hyderabad States, there was a considerable increase in the number of plague deaths; though in Madras the only district severely affected was Bellary, which is specially liable to infection from the above-mentioned States. The largest number of deaths from plague in any province was again recorded in Bombay, where the disease accounted for 184,700 deaths, against 128,200 in 1901. All the collectorates in the Presidency except Upper Sind Frontier were affected, and the total is the highest recorded since the appearance of plague in 1896. In Bombay city, however, the number of recorded plague deaths sank from 18,700 in 1901 to 13,800 in 1902. PLAGUE.

There was a further large increase in plague mortality in the year 1903, the total for all India, according to the returns at present available, being 851,400 deaths. In the Bombay Presidency 353,500 deaths are returned, while the plague mortality in the city rose again to above the level of 1901. There were rather more deaths in Calcutta than in 1902, and in the rest of Bengal the number is more than twice that recorded in that year. The Central Provinces and Central India States for the first time take a high position in the list, with 41,200 and 30,100 deaths respectively. There are heavy increases in the United Provinces and Hyderabad State, and the Punjab again shows a large death-rate from plague. Madras and the Mysore State alone return a smaller number of plague deaths than in the preceding year. 1903.

The effect of the mortality from plague, though large and deplorable in itself, on the general death-rate of the population of British India, aggregating 231 millions of persons, has so far been less marked than might be supposed. The mean annual death-rate from all causes for the whole of India during the ten years ending 1901 was 32·2 per mille. The death-rate for 1902 was slightly below this, being 31·49 per mille, of which 2·7 was due to plague. In 1900 the general death-rate for India was 38·91 per mille, and the death-rate from cholera, 3·70. Excluding from consideration the year 1903, the detailed mortality statistics of which have not yet been received from India, the number of deaths due to plague in any year has not equalled the mortality from cholera in a year of severe epidemic.

# CHAPTER III.

JUSTICE AND POLICE.

## JUSTICE AND POLICE.

### CRIME AND POLICE.

The Commission which was appointed by the Government of India, in their Resolution of the 9th July 1902, to enquire into the question of police administration in India (for the terms of reference, *see* the last number of this Statement, page 81) was able to complete its enquiry, with the aid of the Committees appointed by the local governments, in the cold season of the year under review. A notice was published giving particulars of the dates and places at which the Commission would hold public sittings, and inviting any person who wished to furnish evidence to apply for a copy of the questions framed for the province, and to forward his answers to the Commission; and many persons, especially in Bengal, availed themselves of this opportunity. Beginning work in October 1902, the Commission visited before the close of the year Assam, Bengal and the United Provinces. In January 1903 they went to the Central Provinces, and then in turn to Burma, Madras, Hyderabad, Bombay, the Punjab and the North-West Frontier Province. A number of police stations and offices, and the four police training schools, were also visited. The Commission held 50 public sittings for the examination of witnesses, and examined 279 witnesses. Replies to questions were received from 683 persons, of whom 244 were examined orally. On the conclusion of their tour the Commission proceeded to Simla, where various points were discussed with a conference of Inspector-Generals of Police. The report of the Commission has been submitted since the close of the period under review.

Bengal.

The total sanctioned strength of the police force in Bengal, excluding the Calcutta force and the military police, was at the end of the year under review 24,742. The expenditure on the force during the year was £350,533, an increase of £2,579 on the previous year. In proportion to the population, the number of police was considerably lower than in the other provinces, and proposals for strengthening the force were submitted to the Police Commission.

The town police were reported to be almost everywhere inadequate in numbers and under-officered. As regards the rural police, the total number of *chaukidars* fell from 152,018 to 151,745. The proportion of men of good caste continued to be very small, and improvement in this particular was in most districts very desirable. A sum of £4,187 was paid in rewards to *chaukidars* as against £3,710 in 1901. The percentage of *chaukidars* punished rose from 26·5 to 27·8, non-attendance at parade being the most prevalent offence. The *daffadari* system had been introduced almost completely in all divisions except Chota Nagpur, where the whole police system was reported to be in need of revision. On the whole, however, there appeared to be little doubt that the rural police were gradually, if very slowly, improving.

Of the total force employed at the end of the year, 88·9 per cent. of the officers, and 27·5 per cent. of the men, could read and write. The charges of torture and extortion brought against the police numbered respectively 8 and 95, as compared with 18 and 110 in 1901. Of these 3 and 49, respectively, were declared to be false or dismissed. The general character of the subordinate investigating staff was, however, unfavourably commented upon.

The military police numbered 400, as in the previous year. Their discipline was reported to be good.

The total number of cognisable* offences reported diminished from 178,646 to 177,335. Of the total number made up of these together with pending cases, 42,028 were taken up by magistrates, while 140,856 were reported to the police, who investigated 70 per cent. of the whole number, as against 76 per cent. in 1901. Excluding cases in which enquiry was refused, the police enquired into 118,273 cases *suo motu;* and into 5,724 cases by order of a magistrate. The percentage of convictions was 37·9 against 36·7 in the previous year. CRIME AND POLICE.

As regards serious crimes, the total number of cases of rioting and unlawful assembly tried fell from 2,584 to 2,452, the percentage of convictions being 57. True cases were fewer than in any previous year since 1884, except 1900. The number of riots attended with loss of life was 56. Murders increased slightly; dakaities fell from 358 to 336.

The reported value of property stolen was £128,475, and that of property recovered £18,529. The figures are untrustworthy, but it is certain that the percentage of recovery was very low.

The number of cases of non-cognisable crime fell from 125,075 to 121,911.

The Calcutta police force, which was slightly strengthened during the year, numbered 3,262 officers and men. The total number of cognisable cases was 29,604, as against 25,115 in 1901, the increase, however, being due to petty offences. Of the police cases sent up for trial, 80·8 per cent. ended in conviction. The figures relating to previous convictions showed clearly that crimes against property were in Calcutta mainly the work of professional criminals. It was remarked that the magistrates appeared to be too ready to deal summarily with old offenders, who if committed to the sessions court could be sentenced to longer terms of imprisonment, and thus more adequately dealt with.

The total strength of the police force in the United Provinces was 25,030, and the total cost £408,932. The year's record showed an appreciable improvement in the work of the police. Good progress was made as regards the prevention of crime, and detection also improved slightly. The *morale* of the force was said to have risen considerably. Punishments and resignations were fewer, and rewards more numerous, than in the previous year. At the same time a better class of officer, on the whole, was being recruited. Confidence in the police appears to be increasing among the people, but in this connection dissatisfaction was expressed that so little good use was made of the *chaukidars*, who in intelligent and friendly hands are the most valuable assistants at the disposal of the police. Excellent preventive action, and the final breaking up of the notorious dakait gangs which had given so much trouble, were the most satisfactory features of the year's work. United Provinces.

The total volume of reported crime fell by 9,372 cases—rather more than 5 per cent. Of the total record of crime for disposal, the police investigated 86,358 cases, or 49·8 per cent., as against 51 per cent. in 1901. Considering only crime reported to the police, 9·4 per cent. of cases enquired into were not sent before the courts, for want of proof, 61·2 per cent. were sent before the magistrates, and in 29·4 per cent. of the cases no clue was obtained. In 45·7 per cent. of the total crime reported enquiry was refused. The corresponding percentages for the previous year were 8·6, 61·0, 30·1, and 46.

As regards professional and organised crime, there was a general improvement, though cattle theft showed no real diminution, and highway robberies were more numerous. The latter increase was due entirely to the *Haburas*, a criminal tribe, who were as usual active and committed most of these offences and of the road-dakaitis. The total number of dakaitis decreased, and in the case of armed dakaitis the decrease was very marked, the number having fallen to 50, as against 104 in 1901 and 151 in 1900. No cases of thagi or river dakaiti were reported.

The number of cases decided was 57,320, or 1,554 less than in the previous year. The percentage of convictions fell from 84 to 83. In cases investigated by the police the percentage of convictions rose from 50 to 55.

* Cognisable offences are those for which the police can arrest without a warrant.

CRIME AND POLICE.

The number of non-cognisable cases rose slightly, from 94,388 to 94,877. Property stolen was valued at £111,182, a considerable decrease, and the percentage of recovery was the same as in the previous year, 23.

Punjab.

The total strength of the police force in the Punjab at the end of 1902 was 3,079 officers and 14,961 men; the strength was during the year increased by 258. As regards nationality, there were 85 Europeans, 12 Eurasians, and 17,942 natives. The estimated cost of the force was £233,371. The number of officers, including sergeants, who could read and write was 2,515, and of constables 3,339. Departmental punishments inflicted on members of the force numbered 1,578, and judicial punishments 109, these figures being greater than those for 1901, but considerably less than those for 1900. Dismissals numbered 235.

The amount of crime, which fell in 1901, rose again during the year under review, but was less than in 1900. The retrogression is largely explained by the unfavourable agricultural conditions of the early part of the year, and by the disorganisation caused during the same period by plague. The total number of cognisable offences was 86,344, as against 81,316 in 1901. Offences under the Penal Code increased to 62,920. Of the total number of cases, 50,501 were reported to the police and 35,843 to magistrates. A large number of the latter were unfounded, and the true cases related for the most part to minor offences. The increase in crime was especially marked in serious offences against the person and against property, but murders decreased, and the number of dakaitis, which was 66, as against 68 in 1901, showed no tendency to rise again to the high figures of 1900 and previous years. The percentage of convictions in cases reported to the police was 30, as against 32 in 1901; the percentage to persons arrested was 56, as against 58. The estimated value of property stolen during the year was £69,337, of which 44 per cent, was recovered. The police arrangements of the Delhi Durbar were reported to be excellent, and the crime committed during the Durbar was inconsiderable.

Burma.

The total strength of the Burma civil police was 12,888, and the cost of the force was £241,313. The military police included 406 officers and 14,664 men. Discipline and efficiency were well maintained in both sections of the force, although dismissals and punishments were more numerous, and rewards fewer, than in the previous year. The proportion of actual to sanctioned strength was greater than in 1901, although the high wages paid for labour again caused difficulty in many districts in obtaining recruits. The number of literate men showed a satisfactory increase. With a somewhat larger volume of crime to deal with than in 1901 (37,918 true cognisable cases as against 36,265) the police attained about the same measure of success in detection, the percentage of convictions being 66 in both years.

An unsatisfactory feature was the increase from 1,192 to 1,386 in cases of serious hurt, and special measures have been taken with a view to diminishing the number of cases arising out of the use of clasp knives. Excise and opium cases also increased, probably owing to the strengthening of the excise establishments. Cattle thefts showed a substantial diminution.

The total number of headmen in the province increased by 192 during the year. The numbers with special criminal and civil powers were respectively 534 and 775, as against 498 and 709 in 1901. Although the number dismissed rose from 213 to 290, the work of the headmen continued to be on the whole very satisfactory. As in former years they showed a tendency to apathy towards gambling, excise and opium cases, but in more serious cases they give valuable assistance to the police.

The conduct of the military police was good. A new Kachin Company was raised during the year, and the possibility of further recruitment from indigenous races was under consideration. The health of the force still left much to be desired.

Central Provinces.

In the Central Provinces, the year was, on the whole, much more prosperous than 1901, and the total number of cognisable offences reported fell from 25,310 to 21,532, the lowest total of the last decade, with the exception of that for 1898.

There was an increase in the number of constables from 7,090 to 7,227, mainly on account of the introduction of Government Police into the

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Chhindwara Jagirs and the Chanda Zamindaris. Recruitment was difficult, partly owing to the outbreak of plague. The numbers of officers and men shown as actually entertained were 1,415 and 7,102 respectively. The total cost of the police rose from £93,690 to £97,963. The year's record of punishments was again heavy. The total number of dismissals was 102, as compared with 113 in 1901, while other departmental punishments were inflicted on 439 officers and 365 men, as against 392 officers and 319 men in the previous year. The punishment of almost one-third of the strength of officers must be regarded as the least satisfactory feature of the year's administration.

The percentage of cases investigated to reported fell from 63 to 61, while the percentages of convictions to investigations and decided cases were respectively 54 and 81, the same figures as in 1901. Preventive action improved generally, and remarkable success attended the special measures directed against professional and organised crime in the districts of Sambalpur, Saugor and Nimar. The Sambalpur district, which in previous years had a very bad record, showed only 1,994 reported cognisable offences, as against 3,428 in 1901.

There was a general decline in serious crime. Murders numbered 115, the smallest total in recent years, and dakaities 43. Real dakaity occurred only in the northern and western border-districts. The numbers of robberies, house-breakings, and cattle-thefts were also unusually low. Riots increased from 34 to 69, but were not a serious character, arising, for the most part, out of disputes regarding crops and fields.

The percentage of recovery of stolen property fell from 44 to 33, owing mainly to failure in four large cases. There was good reason to believe that for some years past the Central Provinces had been regularly exploited, to a much greater extent than had hitherto been apprehended, by gangs of professional criminals having their headquarters in the adjoining Native States.

Assam.

The Military Police in Assam numbered at the close of the year 345 officers and 2,588 men; the force was very favourably reported upon by inspecting officers. The strength of the Civil force, including Union Police, was 387 officers and 2,324 constables. The discipline of the force was not altogether satisfactory, though punishments diminished somewhat, and the number of resignations increased. These unsatisfactory features were attributed to the fact that the police in Assam were overworked and underpaid.

The total number of cognisable cases for disposal was 16,484, as compared with 17,010 in 1901. Of this number 10,467 cases were investigated by the police, and 6,474 cases were decided, the percentage of convictions being 68·3. Cases reported to the police numbered 10,130, of which 95·5 per cent. were investigated, convictions being obtained in 77 per cent. of the cases brought to trial. Robbery and dakaity increased slightly, and there was a marked increase in rioting, true cases of which rose from 645 to 788. The cases were mostly of a petty character, arising out of land or paddy-cutting disputes, but a better use of preventive measures is necessary.

Non-cognisable crime showed an increase from 15,403 to 16,039 cases.

The total number of *chaukidars* in the districts of Sylhet, Cachar and Goalpára, where alone a Rural Police force was maintained, was 6,846. In the two latter districts they did good work.

Berar.

The record of cognisable crime in Berar for 1901 was the lowest on record for 35 years, and, in view of this fact, a further reduction from 4,267 to 4,078 in the number of cognisable offences (omitting public nuisances) in the year under review was highly satisfactory. There was no change in the sanctioned strength of the police force, which consisted of 572 officers and 2,330 men. The conduct of the force was not altogether satisfactory, the total number of punishments being 1,563, as against 1,505 in 1901, and the number of fines 341, as against 278. The police had altogether to deal with 2,867 true cases, as compared with 3,340 in 1901 and 8,411 in 1900. In cases actually tried, the percentage of convictions was 77·4. Preventive measures were carried out with success; but the results of the year in respect of the detection of serious offences were only moderately good, and the percentage of stolen property recovered was below the average. Serious offences

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against persons and property fell from 1,130 to 1,069, a lower total than in any year since 1890. There were 54 dakaities, against 89 in 1901. The most serious were the work of a gang of Bhils, which was eventually dispersed, several of its members being captured.

North-West Frontier Province.

The total strength of the police in the North-West Frontier Province was 3,115, and the estimated cost of the force £39,564. The province inevitably shows a worse record of crime than the other more settled provinces, and the returns for the year under review must, on the whole, be regarded as satisfactory. There was a marked reduction in the number of serious crimes, especially in the Peshawar district. The discipline of the force was good; punishments and dismissals were fewer, and rewards more numerous than in 1901. There was, however, a regrettable increase in the number of resignations. The percentage of literate officers was 82, of literate men 13.

The number of cognisable cases reported was 9,966, as compared with 10,243 in 1901. The decrease was common to all classes of crime. Murders fell from 214 to 192, dakaities from 82 to 61, and robberies from 154 to 132. The percentage of convictions to cases reported rose from 23 to 26. Property stolen was valued at £9,414, and the percentage of recoveries rose from 26 to 39. The number of persons ordered to furnish security for good behaviour was 969, as compared with 545 in the previous year. Four new punitive posts were established during the year.

A noteworthy feature of the year's working was the general clearance of bad characters from the Kohat Bannu border, brought about by the military operations in the Waziri country which followed the raid on the Gurguri Police Station in August. Satisfactory features also were the increased co-operation between the Border Military and the Regular police, and the reconciliation of several leading men whose feuds had been a constant source of crime amongst their retainers.

Coorg.

The total strength of the Coorg police force was 224, and it cost £2,833. The total number of cognisable cases reported was 604, as against 671 in the previous year, the improvement being especially marked under offences against property. There were four cases of murder, and one only of dakaity. The proportion of convictions obtained in cognisable cases investigated by the police improved, the percentage rising from 64 to 76.

Madras.

The total strength of the police force in Madras (excluding the punitive police, who numbered altogether 522) was at the end of the year 23,350, the increase of 653 during the year being due mainly to the strengthening of the Madras City Police and to the employment of an additional establishment temporarily on plague duty. The total cost of the force was £298,809, as against £295,224 in 1901. Great difficulty was experienced in many districts in finding recruits of suitable physique and education, but the proportion of constables able to read and write increased from 85·4 to 85·8 per cent. There was a slight increase (from 22·7 to 24·7) in the percentage of men punished for offences other than absence without leave. This, however, was attributed to the closer supervision exercised by inspectors, and judicial convictions declined from 267 to 242. The numbers of officers and men dismissed were respectively 42 and 420, compared with 34 and 422 in 1901. The Madras City Police were reorganised during the year, their pay being improved and the force strengthened by the addition of 252 constables. The punitive force maintained in the Madras District was also slightly increased. Both here and in the Tinnevelly District this force maintained a high standard of efficiency, and there were no disturbances in either district. The work of the village police, as of the village magistrates, was in most cases unsatisfactory.

Prices were favourable during the year, and there was a marked decrease in the number of grave crimes. Murders decreased from 463 to 435, dakaities from 585 to 498, and robberies from 737 to 684. The number of cognisable cases reported under the Penal Code, excluding nuisances, was 60,277 as against 64,967 in 1901, the number of true cases being 44,302 against 48,379. Cases under Special and Local laws also decreased, but the number of nuisances increased somewhat. The decrease in crime was accompanied by a falling off in detection, the general percentage of detection in cases under the Indian Penal Code—38·8—being the lowest recorded during

recent years. The percentage in cases of murder was 19·6, in dakaities 23·0. The proportion of convictions to cases prosecuted by the police decreased from 83·2 to 79·9 per cent. CRIME AND POLICE.

Serious riots occurred in Cuddapah town in April during the Muharram, which synchronised with the "Sri-Rám-navami" festival of the Hindus. Most of the leading offenders were convicted.

The work of the Criminal Identification Bureau has been conducted, since the latter part of 1902, entirely by means of the finger-print system, first introduced in 1899. During the year, 663 identifications of old offenders were made as the result of 3,668 searches.

The total strength of the police force in the Bombay Presidency, inclusive of Sind and railways, but excluding the special forces employed temporarily on plague and famine duty, was 22,308, an increase of 161 on 1901. The total cost of the force rose correspondingly from £289,916 to £311,696. There was a slight improvement in the education of the force, the percentage of officers and men able to read and write increasing from 49 to 51. The total number of men punished, 3,263, was practically the same as in the previous year, but judicial punishments showed a decrease. Bombay.

A general improvement in seasonal conditions was accompanied by a marked diminution of crime, as a whole, though there was an increase in the Northern Division, where famine prevailed, and in Bombay City, as well as a general rise in the value of property stolen, which was estimated at £124,276, against £116,890 in 1901, and a fall from 35 to 33 in the percentage of recoveries. The decrease in serious crime was particularly marked in respect of dakaiti, the number of real cases of which fell from 1,305 to 663. With fewer cases to deal with, the police were distinctly more successful, the percentage of convictions to cases of dakaiti tried increasing from 58 to 77. In Khándesh the operations against dakaits were brought to a successful close by the capture of their leaders.

During the year 135,980 offences in all, cognisable and non-cognisable, were reported, as against 142,092 in 1901. The total of cognisable cases reported to the police, or taken up by them, was 38,634. Including pending cases of the previous year, the complaints for disposal totalled 42,051, including 34,489 Indian Penal Code cases: of these all but 141 were investigated. The percentage of convictions in cases brought before the courts by the police was 80·56, a slight improvement on the previous year. The proportion of undetected cases to those for disposal was 19·09 per cent., showing an improvement less marked than might have been expected in view of the general decrease of crime.

In Bombay City cognisable offences numbered 31,783, compared with 23,571 in the previous year, but there was a decrease in serious crime, the increase being due to offences under local laws. The percentage of convictions in police cognisable cases rose from 88·7 to 92·4. The aggregate value of property stolen fell, in the case of Bombay City, from £24,096 to £18,850, and the percentage of recoveries improved from 42 to 59.

## CRIMINAL JUSTICE.

CRIMINAL JUSTICE.

The judicial staff available during the year for Sessions work in Bengal consisted of 29 Sessions Judges and three Additional Sessions Judges, besides five temporary Additional Sessions Judges who were employed for short periods. The magisterial staff of the province, including Calcutta, consisted of 425 Stipendiary and 1,787 Honorary Magistrates. Bengal.

The total number of criminal offences reported was 299,060, a decrease of 3,103 on the figures for 1901. Of these 200,185 were under the Indian Penal Code, and the remainder under special and local laws. The number of cases declared to be false and dismissed constituted 19·5 per cent. of the whole number. Of the 238,132 true cases, 172,644 were brought to trial.

Presidency magistrates, including the municipal magistrates, dealt with 27,312 cases. Of the 33,674 persons brought to trial, 29,841 were convicted. Magistrates outside Calcutta had before them 145,367 cases, a less number than in either of the two previous years, but the pending file at the end of the year showed 4,998 cases as against 4,818 at the end of 1901. Of the persons whose cases were disposed of 59·2 per cent. were convicted. The total number of witnesses called in the magistrates' courts of the mufassal

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was 642,042, of whom 26·4 per cent. were discharged without examination, and 1·8 per cent. were detained after the third day; these figures compare favourably with those for the previous year. The sentences passed by magistrates included 26,191 of rigorous imprisonment, 743 of simple imprisonment, and 2,104 of whipping, with or without other punishment.

Cases committed or referred to the Sessions Courts during the year numbered 1,778, or 74 less than in 1901, and, 1,860 cases being disposed of, the pending file was reduced to 245 cases. Of 4,525 persons under trial 61·6 per cent. were convicted. There were 65 sentences of death, 250 of transportation, and 30 of whipping. The number of persons tried by jury was 1,130. In 1,007 cases the Sessions Judge approved of the verdict; 85 cases in which there was complete disagreement were referred to the High Court. Of these 57 were decided, the verdict of the jury being accepted in 20 cases and in 35 rejected. In 2,291 cases tried with the aid of Assessors, the judge concurred with the opinion of both Assessors in 1,602 cases, and in 374 differed from both. The average duration of Sessions trials was 51 days, as against 53 in 1901. Out of 26,882 witnesses, 12·4 per cent. were kept after the third day.

The High Court tried 48 cases, involving 63 persons, of whom 48 were convicted, and left 11 cases undecided at the end of the year. The average duration of cases from commitment was 37·9 days.

Including 112 pending cases, there were before the High Court 1,118 appeals, of which 1,036 were decided. Out of 936 appeals from sentences of the Sessions Courts, the orders of the Lower Courts were upheld in 701 instances and reversed in 83. Seventeen appeals by the Local Government against orders of acquittal were heard, the orders being reversed in 10 cases. The Sessions Courts decided 6,487 appeals, and the Magistrates' Courts 5,169, the percentages of wholly unsuccessful appellants being respectively 66·4 and 70·3. Of the 65 death sentences referred from the Sessions Court, 38 were confirmed and 15 commuted to transportation or imprisonment, while in 10 cases the person sentenced was acquitted. The High Court decided 270 revision cases, and the Sessions Courts 6,690.

The total charges for the year in connection with the administration of criminal justice amounted to £207,994, and receipts to £107,386.

North-West Provinces.

For legislative purposes the North West Provinces and Oudh are united, but inasmuch as Oudh is not subject to the High Court of the North-West Provinces, the judicial statistics of the two are given separately.

The total number of offences reported in the North-West Provinces was 128,230, against 134,107 in 1901, while the number brought to trial fell from 93,418 to 91,121. Under the Indian Penal Code 62,254 cases were returned as true, as compared with 63,788 in the previous year. In spite of the diminution in the number of cases, the total number of persons under trial increased slightly to 161,643. Of these, 155,560 were tried in Magistrates' Courts and 3,498 in the Sessions Courts, the percentage of convictions in the former being 52 and in the latter 69. The average duration of cases was nine days, as in 1901, but there appear to have been in some districts an unnecessarily large number of cases pending over six weeks. Out of 327,532 witnesses summoned in Magistrates' Courts, the number detained after the third day was 2,190; in many districts there was room for improvement in this matter. It was generally observed by District Officers that magistrates did not sufficiently make use of Section 250 of the Code of Criminal Procedure for dealing with frivolous and vexatious accusations.

Out of a total of 18,229 appeals, 4,397 were rejected, and in 7,800 the previous orders were confirmed. Trials by jury were fewer than in 1901, but the number of cases (12 out of 112) in which the judge disagreed with the verdict, and referred the case to the High Court, was larger.

Oudh.

The total number of offences reported in Oudh was 44,089 (including 30,912 under the Indian Penal Code) as against 44,223 in 1901. The number of true cases was 31,203, slightly less than in the previous year, but 1,941 more persons were brought to trial, the percentage of convictions falling slightly to 43·87. The number of cases disposed of fell from 34,581 in 1901 to 31,656 in the year under review, and the average duration

increased from 8·3 to 9·1 days in Magistrates' Courts, and from 38·2 to 44·7 days in the Sessions Courts. CRIMINAL JUSTICE.

As regards punishments, sentences of death and transportation rose from 32 and 108 to 58 and 188 respectively. The number of whippings inflicted in lieu of other punishments was 1,283, as compared with 1,679 in 1901.

The total number of appeals was 4,107, out of which 687 were rejected, while in 1,947 the previous orders were confirmed. The corresponding figures for 1901 were 3,825, 559, and 1,910.

In the Punjab, 1902 showed a somewhat worse record, as regards crime generally, than did 1901. In all, 169,944 offences were reported, of which 116,515 were returned as true. Cases brought to trial numbered 99,059, involving 228,581 persons, the corresponding figures for 1901 being 91,807 and 207,771 respectively. The percentage of convictions further decreased to 27. Punjab.

Of the offences returned as true, 70 per cent. were under the Indian Penal Code. There was a satisfactory decrease, from 889 to 821, in offences affecting life, and the number of murders fell from 410 to 389. Thefts also fell considerably, while robberies and dakaities showed a trifling increase.

District magistrates disposed of 2,565 cases, as against 2,361 in 1901, and honorary magistrates also did good work. Sessions trials numbered 384, or one less than in the previous year. No case came before the Chief Court in the exercise of its original jurisdiction, an evidence of the abstention of the large European population of the province from serious forms of crime.

The Chief Court confirmed the sentence of death upon 70 persons, and commuted it in the case of 26, the figures for 1901 being 102 and 13. Sentences of solitary confinement rose from 7,931 to 8,204, but whippings fell from 2,560 to 2,228, and forfeiture of property was ordered in only four cases, as compared with 24 in 1901, and 139 in 1900.

Of the 63,855 persons convicted, 28 per cent. appealed. Twenty per cent. of the appeals were summarily dismissed, and 43 per cent. dismissed after notice; in the remaining cases the sentences were reduced, altered or set aside, or the proceedings quashed.

In the Chief Court the number of appeals instituted fell from 797 to 610, and the pending file was reduced from 163 to 141. In the case of revisions, disposals rose from 1,404 to 1,449, but the pending file also rose slightly, from 202 to 211.

The total number of cases instituted during the year in Burma was 74,274, as against 72,674 in 1901. The percentage of true cases rose slightly, in Lower Burma to 94·3 and in Upper Burma to 87·65. True cases under the Indian Penal Code numbered 25,115 in Lower and 8,263 in Upper Burma. Burma.

Magistrates of all classes disposed of 70,325 cases, an increase of 2,094 on the previous year. The average duration of cases was in Upper Burma 8 days, as in 1901; in Lower Burma it fell from 11 to 10 days. The percentage of persons convicted or committed showed a slight improvement in both divisions of the province, being 62·3 and 66·5 in the Lower and Upper divisions respectively. There appears to have been an improvement in the work of the subordinate magistrates, but it was remarked that there was still a tendency to impose inadequate or disproportionately heavy sentences.

The Sessions Courts in Lower Burma dealt with 851 persons, or 100 more than in 1901. The percentage of convictions rose to 64·7. Capital sentences referred to the Chief Court for confirmation numbered 65, of which 40 were confirmed and 13 reversed. The average duration of trials increased in the Sessions Courts from 41 to 51 days, and in the Chief Court from 31 to 36 days. In Upper Burma, Sessions judges disposed of 93 cases, as compared with 106 in 1901. The percentage of convictions rose from 65·1 to 78·4, and the duration of trials fell from 37 to 34 days. Of 26 death sentences referred to the High Court, 16 were confirmed and one reversed.

As regards punishments, there was a considerable increase, in Lower Burma, in the number of cases in which solitary confinement was awarded.

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The number of whippings in lieu of other punishments also increased, but juvenile whippings decreased. Death sentences numbered 42, and sentences of transportation 183. In Upper Burma, there was also an increase in the number of sentences of whipping and of solitary confinement, while sentences of death and transportation numbered 26 and 35 respectively.

There was a general increase in the number of appeals preferred. In Lower Burma the number disposed of (4,618) was less than in 1901 (4,723), and in Upper Burma greater, viz., 1,351 as against 1,206. The percentage of sentences confirmed was 58·5 in the latter division, and 72·8 in the former, a slight fall in each case. The duration of appeals rose in Lower Burma from 14 to 21 days, and in Upper Burma from 10 to 11 days.

The number of revision cases examined by district magistrates in Lower Burma increased by nearly a thousand to 5,203. Sessions judges did less revisional work than in 1901, only 770 against 927 cases having been called for.

Central Provinces.

In no year in the previous two decades was the number of cases reported (25,532), and of cases returned as true (23,173), in the Central Provinces, so low as in 1902, and the less serious nature of the offences dealt with was reflected in the decreased percentage of convictions, and the general lightness of sentences.

The strength of the magistracy fell from 376 to 375 during the year. The percentage of convictions among the 37,351 persons disposed of was 50·7, the lowest figure of the past ten years. Although partly explained by the considerations referred to above, this result suggests that there was also insufficient discrimination in the issue of process. The average duration of cases continued unduly high, being 10·4 days for police cases, and 27·5 days for complaint cases. So far, the separation of magisterial and civil business, which was initiated in 1901, did not seem to have had the effect of quickening the disposal of criminal work, but it was hoped that improvement would be shown as more favourable economic conditions diminished the claims made upon district officials by matters of revenue administration.

The four Sessions Courts dealt with 161 cases, involving 283 persons, of whom 66·8 per cent. were convicted. In view of the long duration of Sessions trials (70 days), it was felt that an increase in the number of judges was necessary.

Punishments were as a rule lighter than the average. Sentences of death, transportation for life and rigorous imprisonment passed by Sessions Courts numbered respectively 23, 49, and 29, while of 19,300 persons punished by magistrates, four were sentenced to transportation, and 1,519 to whipping, 12,349 being merely fined.

The percentages of appeals rejected remained fairly steady at 59 by District Magistrates, 78 by Sessions Judges, and 83 by the Judicial Commissioner.

The experiment of appointing Public Prosecutors for the better representation of the Crown in Sessions cases was found to be a success in the Nagpur and Jubbulpore divisions, and similar appointments were made in Nerbudda and Chhattisgarh. The experiment promised to give good results.

Assam.

The judicial staff employed on criminal work in Assam consisted of two sessions judges, eight district magistrates, 53 subordinate stipendiary magistrates, and 21 honorary magistrates. During the year 30,476 offences were reported to the criminal courts, including 23,019 under the Penal Code. True cases numbered 18,905, as against 19,851 in 1901.

Including cases pending at the beginning of the year, there were 20,754 true cases before the courts, or 540 less than in 1901; of these, 14,394 were brought to trial, as compared with 14,162 in the previous year.

Magistrates' Courts disposed of 14,307 cases, the proportion of convictions being 50·3 per cent. The Courts of Session disposed of 101 cases, the pending file being increased from 37 to 47. Of the 184 persons tried, 108 were convicted.

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The High Court disposed of 60 appeals, leaving four undecided at the end of the year. The decisions of the lower courts were upheld in 44 cases. In appeals decided by the Courts of Session, the percentage of confirmation was 67·4, and in the Courts of District Magistrates 57·8.

The charges of the Criminal Courts amounted to £15,168, and the receipts to £9,088.

In the hill districts and frontier tracts, which are not under the High Court, 617 cases were disposed of, the percentage of convictions being 71·5.

North West Frontier Province.

Offences reported during the year in the North-West Frontier Province numbered 21,095, of which 72 per cent. were returned as true. Complaints dismissed *in limine* numbered 4,951. In Hazara, where petty and vexatious complaints are very common, the percentage of cases so dismissed rose to nearly 41. The number of cases brought to trial was 13,947, as against 14,387 in 1901, the percentage of convictions being 48, a distinct improvement on 1901, when the percentage was 45. In cases brought to trial under the Indian Penal Code, which numbered 6,266, the percentage of convictions rose from 25 to 26. The large proportion of persons acquitted or discharged in these cases continued to be an unsatisfactory feature. There was a considerable improvement during the year as regards the non-infliction of fines by magistrates, in addition to imprisonment, where the additional penalty was inappropriate.

Of 923 persons (about one fourth of the number convicted by second and third-class magistrates) who appealed to district magistrates, 325 were in some degree successful, about the same proportion as in 1901. The Courts of Session heard 803 appeals, in 36 per cent. of which sentences were reversed or reduced.

Berar.

There were in the areas under the Resident 66 Criminal Courts open at the end of 1902, an increase of two as compared with 1901. Offences reported increased from 19,410 to 21,470, but the percentage of complaints summarily dismissed fell slightly to 10·2, and there was room for improvement in this respect. The total number of offences brought to trial (19,445) was considerably greater than in the previous year (17,602), but the increase was confined to petty cases. The percentage of convictions in cases disposed of fell from 57·6 to 55·3. The average duration of proceedings fell from 9·7 to 9·4 days, and the average period of detention of witnesses also showed an improvement. The pending file was reduced in all the Berar Courts.

The number of appeals filed was 816, as against 819 in 1901. They were promptly dealt with both by the Judicial Commissioner and by the Sessions Judge, the percentage of sentences reversed being 24·7 in the former and 17 in the latter court.

Coorg.

The total number of offences brought to notice in Coorg was 1,642, or 76 less than in the previous year, and the number of actual trials also declined slightly to 1,400. The fall in each case was attributed to the continued decrease in the number of complaints under the Workmen's Breach of Contract Act, 1859, owing to the overstocking of the labour market and the decline of coffee-planting. Excluding breach of contract cases, which were mostly compromised, the Criminal Courts dealt with 1,994 individuals, of whom nearly 27 per cent. were convicted. Only nine convictions for really serious crime were recorded. There was a marked improvement in the average duration of trials, and in the proportion of convictions upheld on appeal.

Madras.

The total numbers of cases and appeals instituted during the year in Madras, excluding those in Village Magistrates' Courts, were respectively 305,344 and 10,437, showing, in the former case, a slight increase and, in the latter, a slight decrease, as compared with 1901. There was a fall from 10,735 to 9,971 in the number of cases instituted in Village Magistrates' Courts. The number of offences reported showed a total decrease of 631 under the Penal Code, there being a large decrease—2,716—under thefts, while there was an increase of 3,575 under special and local laws, which was largely due to an increase of 4,726 cases under the Towns Nuisances Act.

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Grave crime decreased perceptibly. The percentage of convictions in cases brought to trial was 24·36 in the case of offences under the Penal Code, and 85·96 in the case of offences under special and local laws, the average percentages for the preceding five years being 26·26 and 85·36 respectively. The number of European British subjects brought to trial was 117, of whom 56 were convicted. There was a further increase during the year in preventive proceedings under the Criminal Procedure Code, 1,470 persons being ordered to give security for good behaviour, against 1,214 in 1901.

Of 16,438 persons tried in Village Magistrates' Courts, 5,643 were convicted. In the regular Magistrates' Courts in the mufassal, 238,780 cases were instituted, against 229,205 in 1901, but the number of cases pending at the end of the year was reduced by 474. The total number of persons under trial in these courts was 398,188, of whom 387,894 were dealt with, the percentage of convictions rising slightly — from 51·09 to 51·12. Sentences of rigorous imprisonment and whipping were less numerous, while the number of sentences of simple imprisonment increased. Fines were more numerous and less severe. The number of appeals was 8,058, of which 60·71 per cent. were confirmed.

The cases committed to Sessions Courts in the mufassal numbered 1,274, and 3,284 persons in all were tried. Of these 1,516 were tried by jury, 1,444 with the aid of assessors, and 78 partly by jury and partly with assessors. The jury system was reported to have worked satisfactorily on the whole, though the average of intelligence among the jurors was hardly high enough for them to deal adequately with any but simple cases. The percentage of convictions was 47·07. Appeals numbered 1,516, the sentence appealed against being confirmed in 72·77 per cent. of the cases.

There was a fall from 71,768 to 65,249 in the number of cases instituted in the Presidency Magistrates' Courts. The percentage of convictions was 90. A sum of £376 levied as fines in cases of cruelty to animals was paid to the S.P.C.A.

The High Court received for trial 41 Sessions cases, involving 54 persons, of whom 46 were convicted. Thirty-four other cases and 82 death-sentences were also referred by the Sessions Judges to the High Court. The number of appeals received during the year was 767; in 77 per cent. of the total number of cases decided, the proceedings of the lower courts were not interfered with.

Bombay.

The total number of offences reported in Bombay (including Sind) fell from 171,823 in 1901 to 162,883 in 1902. The decrease is noteworthy in view of the general prevalence of famine, but was mainly due to a fall of 21,479 in cases under the Bombay District Municipal Act. Of the total number of cases, 146,220 were returned as true. Cases brought to trial numbered in all 148,254, involving 255,882 persons, the figures being considerably less than for the previous year. Of the persons under trial, 46 per cent. were acquitted or discharged, and 39 per cent. convicted, while 11 per cent. remained under trial. The total number of cases decided was 147,299, as against 198,591 in 1901. Of these 97 per cent. were disposed of by magistrates. Of the total number of persons convicted, 52 per cent. were tried summarily, as against 36 per cent. in 1901. The average duration of cases rose from seven to 28 days. There were 54 sentences of death, and 216 of transportation, as against 59 and 175 in 1901. Whippings increased in number, and formed 18·2 per cent. of the total number of punishments. The number of Europeans brought to trial, mostly for minor offences, was 357, of whom 260 were convicted.

Out of a total of 8,824 appeals, 41 per cent. were rejected; in 32 per cent. the sentences were confirmed, and in 14·5 per cent. reversed. Applications for revision numbered 2,491, the sentence being reduced in 173 cases, reversed in 316 cases, and enhanced in 31 cases.

The numbers of persons tried by jury and with the aid of assessors were respectively 526 and 1,589. The verdicts of the juries were approved, in the High Court, in all cases, and in the Courts of Sessions in 94 per cent. of the cases. In cases tried by assessors, the judge agreed with all or some of the assessors in 86 per cent. of the cases, and differed from all in 14 per cent.

## JAILS.



The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| —— | 1902. | 1901. | 1900. | 1899. | 1898. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January | 108,741 | 115,059 | 109,406 | 102,125 | 109,942 |
| Admissions during the year - | 471,529 | 487,374 | 586,895 | 484,420 | 465,921 |
| Aggregate - - | 580,270 | 602,433 | 696,301 | 586,545 | 575,863 |
| Discharged during the year from all causes | 478,532 | 493,693 | 581,281 | 477,167 | 473,736 |
| Jail population on 31st December - | 101,738 | 108,740 | 115,020 | 109,378 | 102,127 |
| Convict population on 1st January - | 98,873 | 105,047 | 97,196 | 93,828 | 101,035 |
| Admissions during the year - - | 171,256 | 176,568 | 207,437 | 174,060 | 174,110 |
| Aggregate - - | 270,129 | 281,615 | 304,733 | 267,888 | 275,145 |
| Released during the year - - | 172,202 | 178,362 | 194,924 | 167,358 | 177,403 |
| Casualties, &c. - - - - | 4,167 | 4,381 | 4,796 | 3,326 | 3,912 |
| Convict population on 31st December | 93,760 | 98,872 | 105,013 | 97,204 | 93,830 |

The decrease in the number of prisoners, including under-trial prisoners, admitted to jail during 1902, as compared with 1901, was common to all provinces, except Bombay, the Punjab, and Burma. The largest decreases occurred in the Hyderabad Assigned Districts and the Central Provinces. Although the total daily average population decreased similarly by nearly 4 per cent., the daily average in Bengal was the highest recorded since 1876.

The decrease in the number of convicts admitted to jail was much more marked in the case of female convicts (with 9,460 admissions, as against 10,457 in 1901) than in that of males (with 161,796, as against 166,111). There was a decline of 9 per cent. in the number of persons imprisoned for offences connected with property, while those convicted for offences against the person increased by 7 per cent.

The number of escapes during 1902 was 74, as compared with 126 in 1901, and 30 fugitives remained uncaptured at the end of the year. The number of escapes was again largest in the Madras Presidency.

The proportion of juveniles to the total number of prisoners admitted was practically the same as in 1901, the total number of admissions under the age of 16 being 1,564 males and 497 females. The high proportion of female offenders continued to be a characteristic of juvenile crime in Madras.

As regards the religion of convicts admitted during the year, the figures are as follows :—Hindus and Sikhs, 103,848; Muhammadans, 47,875; Buddhists and Jains, 13,496; Christians, 1,684; all other classes, 4,169. The number of those able to read and write was 20,223, while 147,144 were wholly illiterate. The statistics relating to the occupation of prisoners previous to admission show no striking variations from those of 1901. The only increase was one of 9 per cent. under "professional persons"; the majority (93,091) were, as usual, "persons engaged in agriculture and with animals."

The percentage of persons previously convicted to persons admitted to jail fell from 14·68 to 13·7, a large proportion of the crime in 1902 consisting of casual offences. It was remarked that in some provinces too little use was still made of the punishments of solitary confinement and transportation in dealing with habitual offenders. The identification of such offenders received suitable attention in all provinces.

The year's record as regards conduct was somewhat less satisfactory than in 1901, the proportion of punishments to the total daily average population increasing by nearly 4 per cent. The largest increase was in Burma, where

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the proportion rose by nearly 31 per cent. The figures for the different provinces are given below :—

| | 1902. | | | 1901. | | | 1900. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras - - | 10,702 | 15 | 14,819 | 10,813 | 13 | 13,924 | 10,135 | 25 | 14,299 |
| Bombay - - | 10,053 | 20 | 10,110 | 10,122 | 23 | 10,746 | 11,805 | 11 | 9,499 |
| Bengal - - | 19,636 | 29 | 34,458 | 19,181 | 19 | 40,267 | 18,153 | 49 | 41,576 |
| United Provinces | 26,038 | 20 | 42,963 | 27,527 | 19 | 42,788 | 28,767 | 30 | 43,859 |
| Punjab - - | 11,928 | 84 | 38,591 | 12,644 | 123 | 37,951 | 13,911 | 59 | 28,311 |
| Burma - - | 11,076 | 58 | 38,643 | 11,510 | 48 | 33,635 | 12,187 | 36 | 39,214 |
| Central Provinces | 3,870 | 20 | 5,476 | 4,465 | 12 | 5,795 | 5,163 | 24 | 6,521 |
| Assam - - | 1,362 | 19 | 1,699 | 1,463 | 21 | 1,503 | 1,463 | 27 | 1,548 |
| North-West Frontier Province. | 893 | 4 | 1,500 | 881 | 5 | 1,541 | — | — | — |
| Coorg - - | 62 | — | 69 | 97 | 1 | 266 | 99 | 3 | 312 |
| Hyderabad Assigned Districts. | 1,087 | 2 | 620 | 1,389 | 3 | 904 | 1,740 | — | 1,211 |
| | 96,707 | 271 | 188,948 | 100,392 | 317 | 192,320 | 104,023 | 264 | 186,380 |

The Government of India were satisfied that the increase in the number of punishments was not attributable to undue severity. More than one half of the offences (100,083) related to work. The total number of corporal punishments decreased from 1,364 to 1,315, and the statistics showed a growing tendency to resort to flogging only in cases in which either the offence was of a serious character or other forms of punishment had failed. Punishments by solitary confinement and by the imposition of fetters also decreased.

The number of convicts who came under the mark system increased very slightly, but only 99 failed to gain some remission of their sentences, as compared with 235 in 1901. The Government of India decided in 1902 that the system should be applied to persons committed to prison in default of furnishing security. The balance of opinion continued to be in its favour, though complaints were still made as to the complicated nature of the rules and the amount of clerical work involved.

In the provision of separate accommodation for prisoners at night, good progress continued to be made in all provinces.

Partly in consequence of the fall in price of food-grains, the gross cost of maintaining prisoners fell from Rs. 65 4 2 (87*s.*) per head of average strength to Rs. 64 5 11 (85*s.* 5*d.*). The cost varied from over 135*s.* in Coorg to under 66*s.* in the United Provinces. The total expenditure fell from £479,376 to £454,259. The cost of establishment rose from £150,559 to £155,229, while dieting charges fell from £226,293 to £197,757, and hospital charges from £23,732 to £21,939, though the average cost per head of patients increased somewhat. The cash earnings of prisoners increased in a highly satisfactory manner from Rs. 10 11 9 (14*s.* 4*d.*) to Rs. 14 3 10 (19*s.*) per head of average strength, the total cash earnings being £100,499, as against £78,859 in 1901. As in previous years, the amount earned was greatest in Coorg, with Rs. 81 (108*s.*) per head. The reforms effected in financial control in the Central Provinces resulted in a striking increase in cash earnings from Rs. 18 13 (25*s.*) to Rs. 51 1 0 (68*s.*). The earnings of prisoners in the Nagpur Jail sufficed to defray the cost of their maintenance, while those of the Jubbulpore Jail, after meeting all expenses, left a profit to Government of over £660.

The health of the prisoners in all provinces except the Andamans, the North-West Frontier Province, and the Central Provinces, was better than in 1901. The total death rate was 24·87 per mille, as compared with 26·87

in 1901 and 32·8 in 1900. In all jails there were only 36 cases of cholera, with 24 deaths, as compared with 211 cases and 106 deaths in the previous year. Malarial fevers also were somewhat less prevalent. The proportion of admissions and deaths on account of pulmonary tuberculosis was, however, unsatisfactory, the death rate (4·28 per mille) being the highest recorded in recent years. The death rate from this form of disease was particularly high (9·61 per mille) in the Andamans. JAILS.

The number of convicts remaining in the settlement at the end of the year under review was 12,724, as against 12,777 at the end of the previous year, but there was an increase from 12,379 to 12,922 in the average daily strength. The reduction at the end of the year was due to the release of 399 convicts in connection with the Coronation festivities. Conduct was on the whole good, and discipline well maintained. The number of jail offences, most of which were of a petty nature, fell from 3,424 to 2,429, and punishments were less in proportion. During the year, 57 convicts escaped, as compared with 38 in the previous year. Of these 42 were recaptured. Penal settlement at Port Blair.

The receipts of the settlement during 1902–3 amounted to £45,927 and the expenditure to £125,138. The net cost of each convict rose from Rs. 87 14 6 (117*s.*) to Rs. 91 15 2 (122*s.*).

There was an improvement in the working of the three tea-gardens, which showed a net profit, although the area under cultivation was slightly reduced, and the total output, 165,792 lbs., was 3,495 lbs. less than in the previous year.

The year was characterised by a very heavy rainfall, and by an exceptional amount of sickness, which was the least satisfactory feature of the year's working. Special measures were taken with a view to checking the growing prevalence of malaria and of lung and bowel diseases, and particular attention was given to phthisis.

## CIVIL JUSTICE.

The permanent Civil Judicial staff employed in Bengal during 1902 consisted of 14 High Court Judges; 29 District and Sessions Judges; 3 Additional District and Sessions Judges; a Chief Judge and 4 Judges of the Presidency Small Cause Court; 3 Provincial Small Cause Court Judges, of whom 2 also exercised the powers of a Subordinate Judge; 53 Subordinate Judges; and 290 Munsifs. Additional temporary officers were also employed in various districts during the year. CIVIL JUSTICE. Bengal.

The number of civil suits pending on the original side of the High Court, at the end of 1901, excluding 78 pending suits received by transfer from other courts, was 1,467, and the number instituted during 1902 was 910. During the year 726 suits were disposed of, as against 964 in 1901, and the pending file rose to 1,651. The number of suits pending for more than a year (929), however, showed a slight reduction as compared with the number (954) in 1901. The number of insolvency cases pending at the end of the year rose from 179 to 211.

In the civil courts in the mufassal, the total number of ordinary suits and small causes instituted was 642,807, a number larger than in any previous year, except 1900. The increase was chiefly in rent suits. The Munsifs especially worked well, and the number of suits disposed of was 664,599, more than in any previous year, the number of pending suits being reduced from 107,678 to 105,008. The arrears list thus remained unsatisfactorily large, and the appointment of additional officers to cope with it was contemplated.

In the Presidency Small Cause Court, both institutions and disposals showed an increase over the previous year's figures. The number of pending cases had steadily risen from 1,205 in 1899 to 2,427 at the end of 1902.

The most unsatisfactory feature of the year's work was the increase in the number of appeals pending at the end of the year. In the High Court, although there was a considerable increase in the number of appeals disposed of (3,392), this was more than balanced by the increase in the number preferred (3,876), and the number of pending appeals rose from 6,978 to 7,462, a number representing over two years' average appellate work. In

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the subordinate courts 20,587 regular appeals were instituted during the year, and only 19,521 were decided, as against 19,836 in 1901; the number of appeals pending at the end of the year increased by 1,464 to 13,050.

North-West Provinces.

The fall which was noticed in 1901 in the number of original suits instituted in the North-West Provinces continued during 1902, when 87,399 suits were instituted, as against 91,153 in 1901. The continued fall was attributed in large measure to the general disorganisation following the spread of plague.

The pending file was reduced from 10,912 to 9,787, and a material reduction was also effected in the file of cases pending over three months. Although there were 1,948 fewer cases for disposal than in 1901, the number of cases decided after contest rose by 1,046, the percentage of suits decided after contest being 31·32, as compared with 28·9 in the previous year.

The number of appeals before the Subordinate Courts during the year was 13,704, against 13,445 in 1901. A satisfactory reduction in the pending file was, however, effected, the number of appeals disposed of rising from 9,322 to 10,576. The High Court had before it 3,628 appeals, or 450 less than in 1901, and the number disposed of fell from 1,999 to 1,695. Of these, however, 455 were first appeals, as against 120 in 1901. In view of this fact the reduction of the pending file by 146 cases indicated good progress towards the reduction of a heavy file. Of the total number of appeals decided, 1,066 were summarily rejected or dismissed, while previous orders were confirmed in 7,132 cases, modified in 1,347, and reversed in 2,033.

The results of the year's working as regards the disposal of applications for execution of decree were less satisfactory. The number of institutions fell from 90,153 to 86,250, but the number of applications pending at the end of the year was 12,485, as compared with 11,659 at the end of 1901. Realisation was complete in 19,868 cases, and partial in 16,015, while 49,141 applications were wholly infructuous. The percentage of productive applications to applications disposed of was 39·9, slightly above the average for the preceding five years.

Village Munsifs decided 5,602 cases out of a total of 6,273 for disposal: of these only 366, or 6 per cent., were contested. In 1901 the percentage was 8.

Oudh.

The total number of suits instituted in Oudh was very nearly the same as in 1901, viz., 47,257 as compared with 47,209. The total number of suits before the courts was 55,745, and the number decided, by all courts, was 47,240, as against 46,962 in 1901. The pending files rose from 7,352 to 8,505. The duration of contested suits rose from 74·5 to 80·2 days. The total number of appeals from decrees before the courts was 4,981, as against 4,892 in 1901, and the pending file rose from 2,029 to 2,145. Of the appeals decided 175 were dismissed, and previous orders were confirmed in 1,650 cases, modified in 376, and reversed in 480. Miscellaneous appeals numbered 1,058, out of which 886 were disposed of, previous orders being confirmed in 422 cases, modified in 16 cases, and reversed in 128, while 187 appeals were rejected or dismissed.

The Village Courts Act was extended during the year under report to two tahsils of the Sultanpur district. The number of Village Munsifs appointed was 23, of whom one resigned and another was dismissed. Suits to the number of 16 were instituted in the courts of two Munsifs only. They were all decided, 7 being contested. The total value of the suits was Rs. 113 (150s.).

Punjab.

The total number of suits instituted in Civil Courts in the Punjab was 219,599, as compared with 232,234 in the previous year. The decrease was attributed partly to the effect of the Land Alienation Act in reducing pre-emption and mortgage suits, and partly to the scarcity in the Eastern Punjab, which discouraged litigation there. The total number of suits brought by money-lenders against agriculturists fell from 105,958 to 100,449, while suits to establish a right to pre-emption declined from 5,528 to 3,537. The number of suits for trifling sums of money continued to be regrettably large.

Out of 265,771 suits for disposal in District Courts, 236,016 were decided. As compared with 1901, there was a fall of 6,502 in the number of disposals, but the pending file was reduced by 899. The average durations of contested

and uncontested cases were respectively 45 and 27 days, a slight improvement in each case. CIVIL JUSTICE.

The percentage of appeals to appealable orders fell from 24 to 22. In Divisional Courts, 6,897 appeals were instituted, an increase of 1,070, but the pending file rose only from 1,905 to 2,419. In 57 per cent. of the appeals the order of the lower court was upheld. In District Courts appeals fell from 6,201 to 6,164, and the pending file was reduced by 11 to 802. The percentage of confirmation was 56·3.

In the Chief Court, four original suits, 719 appeals from decrees, and 259 appeals from orders were instituted during the year. The latter figures show a slight fall, but the number of disposals fell similarly, and the pending file increased by one to 1,529. The decision of the lower court was confirmed in 40 per cent. of the cases.

As regards the execution of decrees, the results recorded for 1902 showed no improvement. There were in all 225,823 applications, of which 195,103 were disposed of. The amount realised was as usual small, amounting to about 22 per cent. of the value of the money decrees in execution. Steps have been taken to improve the working of the courts in this respect, but many decrees are settled out of court, and the statistics do not altogether do justice to the results obtained.

In order to expedite the disposal of suits, it was arranged during the year that in certain districts where the amount of civil work is large, the whole time of certain officers should be devoted to the trial of such cases.

In the Burma Civil Courts there was a considerable increase in the volume of original litigation and execution proceedings, and a corresponding increase in the duration of cases. The total number of suits instituted rose from 58,143 to 64,618, the increase being common to both sections of the province. In Lower Burma the increase was due to the institution of a larger number of suits for money and moveable property; in Upper Burma it was attributed to the progress of the province. The number of cases disposed of during the year was 64,784, as compared with 57,490 in 1901. Of this number 19,424 were contested, judgment being given for the plaintiff in 68 per cent. of the cases, as in the previous year. The pending file rose from 4,859 to 5,141. Burma.

The total number of regular appeals rose slightly to 5,024, of which 956 were pending at the end of the year. Decrees of lower courts in Lower Burma were confirmed in 59 per cent. of cases, modified in 7 per cent., and reversed in 27·8 per cent., the corresponding figures for 1901 being 59·6, 6·5, and 31·1. Out of 1,195 cases disposed of in district courts in Upper Burma, 60 per cent. were confirmed, as against 57 per cent. in the previous year. In divisional courts in Lower Burma, the decrees of the lower courts were confirmed in 66·3 of the cases decided. In Upper Burma only three appeals came before divisional judges, previous orders being confirmed in one case and modified in two. The Chief Court disposed of 306 appeals, as compared with 293 in 1901.

Applications for execution of decrees rose in Lower Burma from 20,318 to 23,739, and in Upper Burma from 6,164 to 8,411. In Lower Burma there was a noticeable fall in the percentage of wholly infructuous cases, and an increase in the amount realised.

During the year, the schemes for reorganising the administration of civil justice in Lower Burma by the constitution of superior and subordinate judicial services advanced considerably towards realisation.

During the year under review civil judicial work in the Central Provinces was for the first time carried on by a separate staff. Although the separation was not yet complete in some respects, there was considerable improvement in the quality and despatch of civil business. The number of suits instituted rose slightly, from 78,889 to 80,681, so that in spite of a substantial increase, from 76,672 to 80,622, in the number of suits disposed of, the pending file, with 13,355 cases, showed hardly any improvement. The average duration of contested cases rose from 104 to 106 days, while that of uncontested cases fell from 56 to 54 days. Central Provinces.

There was a considerable increase both in the number of appeals instituted and in the number disposed of. In the court of the Judicial Commissioner, 500 regular second appeals were disposed of, as against 382 in 1901, and the

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pending file was reduced from 86 to 40. Divisional judges also disposed of an increased number of appeals, although the pending file rose somewhat. The district appellate courts had before them 5,598 appeals (as against 4,931 in 1901) and disposed of 4,703 (as against 4,080), the average duration falling from 76 to 68 days. The decrees of the lower courts were confirmed in 51·7 per cent. of all cases.

Applications for the execution of decrees numbered 91,572, considerably less than in 1901, and the pending file was reduced from 12,068 to 11,890. The aggregate amount realised showed a satisfactory increase from £75,602 to £84,592. In 18·7 per cent. of the cases satisfaction was obtained in full, and in 18·9 per cent. in part, while 57·2 per cent. were wholly infructuous. The corresponding figures for 1901 were 16·1, 18·1, and 61·1.

Assam.

The civil judicial staff in Assam consisted during 1902 of three district judges, eight subordinate judges, and 30 munsifs. Towards the close of the year, the appointment of District Judge in the Assam Valley districts was separated from that of Commissioner. The number of original suits instituted during the year was 30,282, an increase of 1,412 on 1901. The increase was mainly in Sylhet, there being a slight decrease in the Assam Valley districts. Altogether there were 36,423 suits for disposal, and 30,689 were disposed of, an advance of 1,105 on 1901, the number of cases disposed of in the Assam Valley district, however, falling by 550. The pending file increased from 4,911 to 5,192.

In the High Court 91 appeals were preferred during the year, and 72 were disposed of, the pending file rising from 182 to 201. Previous orders were confirmed in 46 cases, modified in four, and reversed in four. In subordinate courts 1,114 appeals were instituted and 843 disposed of during the year, the pending file increasing from 634 to 938. Of 766 appeals decided after hearing, the decisions of the lower courts were confirmed in 70·4 per cent. and reversed in 18 per cent.

The number of applications for execution of decrees disposed of was 16,908, full satisfaction being obtained in 2,688 cases and partial satisfaction in 3,816.

In the hill districts and frontier tracts, there were 1,390 cases for disposal, of which 1,057 were decided.

North-West Frontier Province.

The suits instituted in the North-West Frontier Province during 1902 numbered 18,797, as against 19,514 in the previous year. The decrease in the number of suits instituted in the Peshawar District was maintained, the figures being the lowest on record since 1895, and the policy of compromise among the leading families of the district was constantly adopted. There was a satisfactory fall from 919 to 684 in the number of suits for pre-emption, which had in this province been to a large extent brought merely with the hope of obtaining some gratification in consideration of the withdrawal of the suit.

Out of 23,360 suits for disposal in the district courts, 21,040 were decided, a somewhat less number than in 1901. An unsatisfactory feature was the increase in the average duration of cases, contested and uncontested, from 37 to 42 days, and from 23 to 25 days, respectively. The increase was, however, explained as being due to temporary causes, and to the clearing off of old suits.

District judges and subordinate judges with appellate powers disposed of 552 appeals, as against 647 in 1901. The proportion of cases in which the order of the lower court was interfered with showed a satisfactory decrease from 34 to 26 per cent. Divisional courts disposed of 1,029 appeals, previous orders being interfered with in 30 per cent. of the cases.

Berar.

The number of officers presiding over civil courts in the areas under the Resident was 34, as in the preceding year. The increase in litigation that marked the disappearance of famine was not maintained during 1902. The total number of suits fell by 1,112 to 26,494. Pre-emption and mortgage suits alone showed a marked increase: suits for money and movable property decreased largely. There were in all 37,076 suits for disposal, and the pending file was reduced from 9,924 to 8,716. The average duration of contested cases, which was high in 1901, increased further to 222 days, and improvement was looked for in this respect.

As regards appeals there was a considerable improvement, both in respect of the number of cases disposed of and their duration, in the court of the Civil and Sessions Judge, but more appeals came before the Judicial Commissioner and the average duration in this court rose. CIVIL JUSTICE.

Applications for execution of decrees increased by 1,430. The fact that full satisfaction was obtained in more cases, while fewer were wholly infructuous, was an evidence of the improved financial condition of the people.

The number of civil courts in Coorg was five, as in 1901. The total number of institutions declined from 1,903 to 1,650 and the value of suits fell by £1,904 to £17,790. The decrease in litigation was regarded as the effect of the general depression of trade connected with the unfavourable conditions affecting the planting interest. Judged by the results of appeals there was an improvement in the quality of judicial work. Execution proceedings (3,102), were even more numerous than in 1901: the proportion of wholly infructuous applications (74·5 per cent.), though still exceedingly high, showed a slight improvement. Coorg.

The number of tribunals exercising civil jurisdiction in Madras remained practically as in previous years, except that village courts fell from 5,517 to 5,377. The year was marked by a considerable diminution in the volume of litigation, which was attributed partly to the favourable season and partly to the fact that the new Civil Rules of Practice were not yet thoroughly understood by the litigant public. The total number of suits instituted was 333,516, or 14,067 less than in 1901, the decrease being distributed over all classes of courts, and the number of appeals was 11,795, a decrease of 581. Although there was at the same time in most courts a falling-off in the number of suits disposed of, arrears were substantially reduced. There was a general reduction of arrears in the subordinate judges' courts and in the village and revenue courts. In the district courts an increase from 383 to 491 in the number of ordinary suits pending at the end of the year was more than balanced by a reduction from 502 to 97 of the arrears under the head of small causes. In the Presidency Court of Small Causes and in the City Civil Court arrears increased slightly. Madras.

Before village courts 84,746 suits were instituted, a decrease of 4,781 on 1901, and 85,221 were disposed of. Out of 103,386 ordinary suits and 130,350 small causes for disposal (78,201 and 119,601 of which respectively were instituted during the year) the district munsifs disposed of 79,732 and 120,728 respectively, as against 81,903 and 128,292 in 1901. In subordinate judges' courts the numbers of ordinary suits and small causes disposed of were respectively 987 and 18,229, as against 982 and 18,760 in the previous year. In district courts the numbers were 417 and 1,293, compared with 462 and 1,442 in 1901.

In the High Court a fall from 236 to 196 in the number of suits instituted on the original side was accompanied by a decrease from 232 to 203 in the number disposed of, and 106 cases were pending at the end of the year. The average duration of contested suits was 214 days, of uncontested suits 218 days. The number of appeals of all kinds preferred to the High Court was 2,183. More were disposed of than in 1901—346 first appeals and 1,728 second appeals, against 309 and 1,090 in the previous year—and arrears under both of these heads were reduced.

In the Bombay Presidency (including Sind), the total number of suits instituted showed a small decrease, from 191,823 to 187,570, which was attributed partly to famine and plague. Of these 74 per cent. were for money or moveable property, and 15 per cent. related to immoveable property, all other suits totalling 11 per cent. The percentage of contested suits rose from 27 to 30. The disposal of civil work seems to have been considerably retarded, the average duration of contested and uncontested suits having risen from 93 and 61 days respectively to 188 and 96 days. The total number of suits disposed of was 188,267, as against 193,892 in 1901, and arrears increased from 37,618 to 38,078, the number of suits for disposal having been increased by the revival of 1,157 cases. Bombay.

Including arrears from the previous year to the number of 4,174, there were 8,776 appeals before the courts, of which 4,514 were decided. In 2,183

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cases the decrees of the lower courts were confirmed, while 1,010 cases were not prosecuted or were dismissed. The average duration of appeals rose slightly to 240 days.

The number of applications for execution of decrees was 204,238, of which 203,807 were disposed of, arrears increasing from 57,250 to 57,681. Excluding 3,593 applications disposed of by transfer, or under the Dakhan Agriculturists' Relief Act, 67 per cent. of the applications proved wholly infructuous; full satisfaction was obtained in 12 per cent. of the cases, partial satisfaction in the remainder. The total amount recovered in execution fell from £366,907 to £278,316. The number of persons imprisoned in process of execution was 905, us against 973 in 1901.

During the year 6,073 civil court decrees were referred to the Collectors for execution, as compared with 4,967 in 1901, making with arrears a total of 14,737 decrees for disposal. Of these 4,850 were disposed of, the smallness of this number being in part attributable to the unfavourable season.

Under the Dakhan Agriculturists' Relief Act, 15,188 suits were instituted, an increase of 930 on the figures for 1901. Of these 58 per cent. were under Chapter II. The percentage of agricultural suits contested was 47. The average cost of litigation varied from 8 to 13 per cent. of the amount claimed. The village munsifs appointed under the Act, 89 in number, disposed of 4,679 out of 4,781 suits instituted. The conciliators, who numbered 233 at the end of the year, received in all 31,909 applications. Claims of the value of £35,682 were settled for £30,139, showing an abatement of 15 per cent.

## CHAPTER IV.

### REGISTRATION.

REGISTRATION.

General.

The Registration Law of 1877 was in force during the year under review throughout British India, with the exception of Upper Burma, for which there was a special regulation, and of certain other tracts in which the conditions are exceptional. For the purpose of registration, documents are divided into (*a*) those of which registration is compulsory, or necessary to the validity of the deed, and (*b*) those which are not required by the law to be registered, but which can be so treated or not at the option of the holder, though liable, if unregistered, to be superseded by subsequent registered documents, subject to the equitable doctrine of notice. In the former class are deeds of gift of immovable property, or other documents, excluding wills, which affect rights in such property of value more than Rs. 100, and, with certain exceptions, annual or longer leases. In the second category, that of optionally registrable documents, are those relating to immovable property not included in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As concerns transfers of immovable property, however, the situation is affected in most provinces by the Transfer of Property Act of 1882. This Act was in force during the year under review throughout British India, with the exception of Burma, the Punjab, and Sind, and other scheduled districts. Under its provisions all transfers by sale or mortgage of immovable property must be registered, excepting that in the case of tangible immovable property of value below Rs. 100 transfer may alternatively be effected by delivery of the property. The Transfer of Property Act was amended by an Act recently passed. Offices are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. The total registration receipts of the year 1902–03 were £312,600 as compared with £312,100 in the preceding year; and the cost of the registration offices was £171,800, leaving a surplus of £140,800, against £140,300 in the year 1901–02.

Bengal.

There was in the year 1902 an increase in the total number of deeds registered in Bengal from 1,418,500 to 1,468,100. The rise occurred entirely in deeds affecting immovable property, and much the larger part of it was in the compulsory classes, which contained 999,852 registrations. Sales of immovable property showed an advance of 7 per cent., numbering 397,800. Mortgages coming under the compulsory heading numbered 161,300, or over 5 per cent. more than in 1901. On the other hand, the number of money bonds declined. The aggregate value of the property affected by the documents registered amounted to £15,388,000, against £14,726,000 in the previous year; nearly one fifth of that amount is contributed by the comparatively small number of deeds (3,932) registered in Calcutta. The number of registered transfers of holdings by tenants paying at fixed rates or enjoying occupancy rights was 299,300, compared with 271,300 in 1901; the transfer was made in 214,100 cases to other ryots, and in 31,800 cases to traders or money-lenders. Occupancy holdings realised 19·2 years' purchase against 17·9 years' purchase in 1901. Registrations under the Bengal Tenancy Act numbered 88,400.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year 1902–03 in parts of the Champaran and Muzaffarpur districts, but the operations are on a small scale, and show a tendency to decrease. The total number of mutations recorded during the year under report was 2,785 (2,075 sales and 728 successions), against 3,111 in the preceding year. Only 916 mutations were recorded on application, as against 1,094 in the year 1901–02.

United Provinces.

The number of documents registered in the United Provinces fell from 235,800 to 199,900 in the year 1902, of which 162,700 affected immovable property. The number of registered sales of such property fell from 48,700 to 44,700, owing to good harvests and other causes; that of mortgages from 79,200 to 69,900, owing to the passing of the Rent Act, and the obstacles

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placed in the way of mortgagees of occupancy rights by tenants; while the number of term leases fell 50 per cent., the figures returning to more normal conditions after three years of agitation over the Rent Act. The value of the immovable property affected by the deeds registered was £6,114,500. The value of all classes of property affected by all deeds registered during the year was £6,778,000.

**Punjab.** The number of documents registered in the Punjab in the year 1902 was 70,800, or nearly 6 per cent. less than in the preceding year. The fall occurred about equally in sales and mortgages of immovable property; but the comparison with 1901 is vitiated by the fact that the Punjab Alienation of Land Act was not passed until five months of the earlier year had elapsed, and that during those months the number of transactions was exceptional. The latter months of 1902 seem to show a tendency to a revival in the number of transactions. Registrations of deeds affecting immovable property numbered 64,400, which 25,100 were sales and 34,000 were mortgages. The total value of all classes of property transferred under the documents registered was £2,429,200, of which £1,914,600 is under sales and mortgages of immovable property.

**Burma.** The number of registrations in Lower Burma increased from 24,500 to 28,300, the increase occurring for the most part in deeds of which registration is compulsory; and the aggregate value of immovable property affected was £2,705,000, which was more than 30 per cent. above the figure for 1901, owing to the inclusion of some properties of exceptionally large value. Of this total, £1,145,100, or 42 per cent., represents property in Rangoon town.

The registration system of Upper Burma differs from that of Lower Burma in that all deeds relating to transfers of land, however small the value, must be registered. The registered deeds affecting immovable property showed an increase in 1902 as compared with the previous year, and the value of the property affected was higher, amounting to £293,900; 519 deeds affecting movable property were filed under the optional system established in 1898–99. The total number of documents registered was 7,300.

**Central Provinces.** The number of registrations in the Central Provinces fell from 25,310 to 23,372, which is, however, higher than in some recent years, though far below the figures of the period before the passing of the Tenancy Act. Sales and mortgages of land both were fewer, but perpetual leases, which are suspected of being a means of evading the provisions of the Tenancy Act, increased in number. The aggregate value of the property affected fell to £624,400, which included £251,300 under sales, and £188,000 under mortgages, of immovable property. The greater part of the sales are made to agriculturists, while mortgages, on the other hand, are to a larger extent made to the non-agricultural classes.

**Assam.** In Assam 53,200 documents were registered, or 17 per cent. more than the total of the preceding year; 74 per cent of the registrations occurred in the Sylhet district; 46,000 of the deeds related to transactions affecting immovable property, which were considerably more numerous than in the previous year, owing partly, perhaps, to the growing impression that unregistered deeds are of little value. The aggregate value of property affected by the deeds registered was £591,800, of which £466,800 related to immovable property. The number of registrations in the optional class rose from 11,400 to 12,600.

**Madras.** In Madras the number of registrations fell from 995,800 to 937,600, owing to a decline in the price of food grains resulting from the favourable season. The number of registered sales of land was 324,300, or considerably less than in the preceding year; of that number more than half affected land worth less than Rs. 100; the number of other deeds affecting immovable property was lower than in the previous year, while those relating to movable property, which are comparatively few in number, also show a decline. The value represented by the registered sales and mortgages of immovable property amounted to £10,051,100, by other deeds affecting such property £2,796,100, and by deeds affecting movable property £698,700.

**Bombay.** The number of registrations in Bombay was 166,100, or 16 per cent. less than in 1901, the decrease being universal in all districts, and ascribed in part to the liberal grant of agricultural loans by the Government, and in part

to the ravages of plague, both of which tended to restrict the amount of loans by money-lenders. A contributing cause is also the introduction of the Deccan Agriculturists' Relief Act into Sind. The decrease occurred in practically all classes of deeds. Registered deeds of sale or exchange and mortgages of immovable property numbered 65,700 and 55,400 respectively, against 75,100 and 74,100 in the previous year; but the average value of all deeds transferring land was higher than in the preceding year, and the aggregate value represented by such deeds was £5,656,300. The aggregate value of the property affected by all instruments registered in the year was £5,790,000, or £783,800 less than in 1901. REGISTRATION.

Under the special law for the protection of agriculturists in the four Deccan districts of Poona, Satara, Ahmednagar, and Sholapur, there were 102,300 registrations, which was 16 per cent. below the total of the previous year. The registered sales, leases, and mortgages of agricultural land numbered 88,500, and the transactions between agriculturists on both sides appear from the returns to have increased, whether owing to genuine agriculturists having undertaken money-lending or to money-lenders having registered themselves as agriculturists after acquiring land. The aggregate value of property concerned in these special registrations was £327,000.

The number of registrations in Berar amounted in 1902 to 32,200, compared with 34,900 in the preceding year. The decrease is attributed to the general tranquillity. It occurred in all classes of deeds, but especially in instruments of sale of immovable property. The total value of property transferred, £762,600, shows a proportionate decrease, the value of the land sold having been considerably less than in 1901. Berar.

## JOINT STOCK COMPANIES.

The Report on Joint Stock Companies for 1902–03 for the whole of India shows that the number of new joint stock companies registered was 318, with a nominal capital of £1,553,000, and a paid-up capital of £132,100; while 83 companies, with a paid-up capital of £795,800, ceased to work. On the other hand, the paid-up capital of 434 companies was increased by an aggregate amount of £1,396,000, while 49 companies reduced their paid-up capital by £37,400 in all. The net result was that at the end of the year there were in operation 1,440 companies, with a paid-up capital of £26,201,000, which is 2·7 per cent. larger than the figure for 1901–02. The companies work chiefly in the provinces of Bengal and Bombay, which possess 43 and 40 per cent. respectively of all the paid-up capital; in Madras the number of companies (424) was larger than in either of the two former provinces, but the paid-up capital constituted only about 7 per cent. of the whole; in the United Provinces the paid-up capital of the 86 companies aggregated £1,268,000, or 5 per cent. of the whole; in no other province did the aggregate paid-up capital of registered companies reach £600,000. The Bombay companies are, taking the figures as they stand, the richest, the average of paid-up capital for the 329 companies in that presidency being £31,600; while for the 407 companies of Bengal it is £27,900, for the 424 of Madras £4,300, and for the 86 of the United Provinces £14,700. The average in Bengal has risen much in recent years, owing to the extinction of most of the native provident societies with practically no paid-up capital. In Bombay, on the other hand, companies limited by guarantee, and working without any capital paid-up, are still active, and though the number of them was reduced during the year by 20, there were still 72 of them at work in March 1903. The distribution of paid-up capital among registered companies for different classes of industry was as follows:— JOINT STOCK COMPANIES.

| | Paid-up Capital. £ | | Paid-up Capital. £ |
|---|---|---|---|
| Banking and insurance | 3,308,000 | Mills and presses | 12,714,000 |
| Trading and shipping | 4,861,000 | Tea and planting | 2,438,000 |
| Mining and quarrying | 1,671,000 | | |

JOINT STOCK COMPANIES.

The group of companies with the largest aggregate subscribed capital, £12,714,000, constituting nearly 49 per cent. of the total paid-up capital, were for weaving and spinning or for pressing cotton, jute, wool, and silk; and nearly 59 per cent. of the capital of such undertakings belonged to the Bombay Presidency. In the 15 years from 1888–89 to 1902–03 the number of joint stock companies at work has risen from 895 to 1,440, and the paid-up capital has risen from $15\frac{1}{3}$ to $26\frac{1}{5}$ millions of pounds.

PATENTS.

## PATENTS AND DESIGNS.

The total number of applications filed in 1902, the latest year for which statistics are to hand, for the registration of inventions under the Patents Law was 524, or 28 more than in the preceding year. Of these, 46 were refused or abandoned, and 120 were undecided at the end of the year. Fifty-three only of the applications were made by natives of India, 144 by Anglo-Indians, and 327 by other persons. The number of specifications filed during the year was 375, or 37 less than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 457. There were 28 applications for the registration of designs, of which 10 were rejected. Of the inventions for which protection was sought, 62 were connected with railways, 21 with electrical contrivances, 17 with the manufacture of tea, 13 with the treatment of fibres, and seven with the manufacture of indigo.

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# CHAPTER V.

## FINANCE.

Finance.

### Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions are next stated: and the two last sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteen pence to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates differing from the rate of sixteen pence to the rupee, are included in a single line under the head of Exhange in the Miscellaneous group of Revenue and Expenditure.

### Gross Revenue and Expenditure.

Gross Revenue and Expenditure.

The gross revenue and expenditure of British India in 1902–03 may be thus compared with the figures for 1901–02:—

| | 1901–02. | 1902–03. | Difference. |
|---|---|---|---|
| | £ | £ | £ |
| Revenue - - - - | 76,344,525 | 77,434,915 | +1,090,390 |
| Expenditure - - - - | 71,394,282 | 74,365,366 | +2,971,084 |
| Surplus - - £ | 4,950,243 | 3,060,549 | *—1,880,694 (worse)* |

In the gross revenue are included receipts of the various civil and military departments and interest receipts, amounting altogether to about £4,000,000, which are rather of the nature of a set-off against the corresponding charges than revenue proper: and, on the other hand, there are included in the gross expenditure the refunds, assignments and compensations, the cost of the cultivation and manufacture of opium, the expenses of the railways, irrigation, post-office, telegraphs and mint, and some miscellaneous charges, which are a direct set-off against the revenue. The financial position of the Government can be much better appreciated by looking at the Return of Net Income and Expenditure, which is annually laid before Parliament.* The following is a statement for 1901–02 and 1902–03 of the net revenue and expenditure, *i.e.*, the revenue and expenditure remaining after the deduction in each case of the receipts and charges just mentioned:—

* *See* Parliamentary Paper H. of C. 95 of 1904.

FINANCE.

Net Revenue and Expenditure.

## NET REVENUE.

| | 1901-02. | | 1902-03. | | Net Revenue Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c.: | | | | | | |
| Land Revenue | 17,533,642 | | 17,689,653 | | +156,011 | |
| Forests | 1,153,820 | | 1,295,029 | | +141,209 | |
| Tributes from Native States | 556,980 | | 581,995 | | +25,015 | |
| | | 19,244,442 | | 19,566,677 | | +322,235 |
| Opium: Net Receipts | — | 3,240,068 | — | 2,846,869 | — | *−393,199* |
| Taxation: | | | | | | |
| Salt | 5,673,991 | | 5,931,933 | | +257,942 | |
| Stamps | 3,409,436 | | 3,434,401 | | +24,965 | |
| Excise | 4,025,770 | | 4,384,181 | | +358,411 | |
| Provincial Rates | 2,737,448 | | 2,741,449 | | +4,001 | |
| Customs | 3,734,517 | | 3,829,848 | | +95,331 | |
| Assessed Taxes | 1,362,227 | | 1,402,672 | | +40,445 | |
| Registration | 312,081 | | 312,659 | | +578 | |
| | | 21,255,470 | | 22,037,143 | — | +781,673 |
| Commercial Undertakings*: | | | | | | |
| Post Office | 103,085 | | 83,157 | | *−19,928* | |
| Telegraph | 3,922 | | *−32,763* | | *−36,685* | |
| Railways | 846,616 | | 228,949 | | *−617,667* | |
| Irrigation | 172,872 | | 193,746 | | +20,874 | |
| | | 1,126,495 | | 473,039 | | *−653,406* |
| Miscellaneous Receipts: | | | | | | |
| Mint | 51,340 | | *−12,776* | | *−64,116* | |
| Miscellaneous | 22,239 | | *−254,316* | | *−276,555* | |
| | | 73,579 | | *−267,092* | | *−340,671* |
| Exchange | — | 25,494 | — | 31,571 | — | +6,077 |
| Total Net Revenue £ | — | 44,965,548 | — | 44,688,257 | — | *−277,291* |

## NET EXPENDITURE.

| | 1901-02. | | 1902-03. | | Net Expenditure Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services: Interest on Public Debt (other than that charged to Railways and Irrigation) and other obligations. | — | 1,158,658 | — | 965,018 | — | *−193,640* |
| Military Services: | | | | | | |
| Army | 14,786,342 | | 16,221,402 | | +1,435,060 | |
| Military Works | 917,140 | | 1,058,368 | | +141,228 | |
| | | 15,703,182 | | 17,279,770 | — | +1,576,288 |
| Collection of Revenue | — | 4,582,407 | — | 4,704,858 | — | +122,451 |
| Civil Services: | | | | | | |
| Civil Departments | 9,885,601 | | 10,366,855 | | +481,254 | |
| Miscellaneous Civil Charges | 3,559,115 | | 3,640,258 | | +81,143 | |
| Civil Works | 3,235 929 | | 3,697,139 | | +461,210 | |
| Construction of Railways charged to Provincial or Local Revenues. | *−66,709* | | 54,659 | | +121,368 | |
| | | 16,613,936 | | 17,758,911 | | 1,144,975 |
| Famine Relief and Insurance | — | 884,512 | — | 982,576 | — | +98,064 |
| Provincial and Local Surpluses or Deficits. | — | 1,072,310 | — | *−72,425* | — | *−1,144,735* |
| Total Net Expenditure £ | — | 40,015,305 | — | 41,618,708 | — | +1,603,403 |
| Excess of Income over Expenditure. | — | 4,950,243 | — | 3,069,549 | — | *−1,880,694* |
| | | 44,965,548 | | 44,688,257 | | |

* In this table, for the first time, the Commercial Undertakings are treated as a branch of Revenue. The receipts from these Undertakings have exceeded the charges since 1899-1900.

FINANCE. Net Revenue and Expenditure.

Thus there was in 1902–03, as compared with the previous year, a decrease in the net revenue of £277,291, and an increase in the net expenditure of £1,603,403, making the position worse by £1,880,694, and producing a surplus of £3,069,549 in 1902–03, as compared with a surplus of £4,950,243 in 1901–02. This is the result of a decrease in the net revenue in India by £184,762, an increase of net expenditure in India by £906,363, and an increase of £789,569 in the net disbursements of the Home Treasury.

Detailed explanations of the figures of revenue and expenditure are published annually in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the most important increases and decreases in 1902–03 :—

*Net Revenue.*

*Increases.*—The improvement in the Excise revenue, £358,411, was general throughout India, and is attributed to increased prosperity. The increase in the Salt Revenue, £257,942, is partly attributed to the same cause, partly to improved facilities of distribution favouring consumption; it would have been somewhat larger but for the reduction in the salt duty which came into force on the 18th March 1903, and lessened the receipts for the last fortnight of the year.

*Decreases.*—The net revenue from Railways shows a falling-off of £617,667, due chiefly to heavier expenditure on State railways for maintenance and renewals. Under Opium there was a decrease of £393,199. In 1901–02 the average price obtained at the Calcutta opium sales was higher than that realised in 1902–03; in addition, the crop was small in the earlier year and the payments to cultivators were accordingly low.

*Net Expenditure.*

*Increases.*—The most important is that in the Army charges, viz., £1,435,060. In England, the net payments to the War Office on account of the British forces in India amounted to £852,000, as against £64,010 in the previous year. In that year there were large refunds by the War Office of sums overpaid in earlier years, and £220,000 was also received from the War Office as a moiety of the cost of bounties given to soldiers in India to extend their service with the colours. In India there was a smaller saving through the absence of troops in South Africa, China, and Somaliland, the amounts being £743,000 in 1901–02 and about £480,000 in 1902–03, while an addition of 2*d.* a day to the pay of the British soldier from the 1st April 1902 increased the charges by about £214,000. Since the 1st October 1902 the Hyderabad Contingent has been paid by the Government of India, and about £114,000 was issued on this account in 1902–03. Lastly, the net expenditure in England on the Troop Service was increased by £121,379 in consequence of the restoration of the system of Indian reliefs after the dislocation that occurred during the war in South Africa.

The net charges of the Civil Departments show an increase of £481,254, mainly on Education, the General Administration, and Political services. A portion of the increase was due to expenses in connection with the Delhi Durbar.

Of the additional outlay on Civil Works, £461,210, a portion was spent on the construction of schools, while part was the outcome of a special grant by the Government of India to those provinces in which famine and other causes had necessitated the postponement of useful and urgent works.

*Decreases.*—In 1901–02 the Government of India, having regard to the strain that had been thrown on Provincial revenues by famine, made special grants of £1,362,900 to the Provincial Governments, and the balances of these Governments were higher by £1,072,310 at the end of that year than at the beginning. In 1902–03, on the other hand, they defrayed from their balances £72,425 of the expenditure of the year. Thus the Provincial adjustments in 1902–03 were more favourable to the Government of India by £1,144,735 than in the previous year.

FINANCE.

The tables in the Appendix show the net revenue and expenditure in India of the several Provinces under the chief heads for the years 1901–02 and 1902–03, and the net payments in England.

The following summary shows the surpluses or deficits in the various Provinces and the net expenditure by the Government of India and the Secretary of State :—

| Provinces, &c. | 1901-02. | | 1902-03. | |
|---|---|---|---|---|
| | Surplus. | Deficit. | Surplus. | Deficit. |
| | £ | £ | £ | £ |
| Bengal | 8,934,492 | — | 8,413,632 | — |
| United Provinces | 4,490,639 | — | 4,488,197 | — |
| Punjab | 2,871,805 | — | 2,541,780 | — |
| Burma | 1,807,776 | — | 2,349,816 | — |
| Central Provinces | 508,219 | — | 577,446 | — |
| Assam | 287,176 | — | 225,937 | — |
| Madras | 3,515,872 | — | 3,760,650 | — |
| Bombay | 3,337,582 | — | 3,498,215 | — |
| North-West Frontier Province | — | *—88,830* | — | *—221,712* |
| Berar | — | — | 357,922 | — |
| India, General | — | *—3,837,041* | — | *—5,255,318* |
| England | — | *—16,877,447* | — | *—17,667,016* |
| Net result | 4,950,243 | — | 3,069,549 | — |

## CAPITAL OUTLAY ON PUBLIC WORKS.

Capital outlay on public works.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

| | 1901-02. | 1902 03. |
|---|---|---|
| Amount supplied by Ordinary borrowing or from the Cash Balances, without being charged against the Revenue of the year : | £ | £ |
| State Railways | 2,759,503 | 3,260,640 |
| Irrigation Works | 547,551 | 564,191 |
| Amount met by Debenture Stock issued by the East Indian and South Indian Railway Companies. | 764,098 | 1,303,361 |
| Amount defrayed from Revenue : | | |
| Provincial Railways | *—66,709* | 54,659 |
| Surveys of Railways charged to Revenue in previous years | 81,671 | — |
| Protective Railways | — | 1,625 |
| Protective Irrigation Works | 70,692 | 94,742 |
| Other Irrigation Works* | 61,398 | 15,840 |
| Total Direct Outlay by the State | 4,218,204 | 5,295,058 |
| Outlay by companies guaranteed or subsidised by Government | 2,404,116 | 2,194,067 |
| Outlay by railways outside Government accounts | 269,940 | 668,060 |
| Outlay by Local Boards | 107,007 | — |
| Total Capital Outlay on Railways and Irrigation £ | 6,999,267 | 8,157,185 |

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

## DEBT.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1902–03, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1 :—

| — | Amount of Debt on 31st March 1902. | Amount of Debt on 31st March 1903. | Increase. | Decrease. |
|---|---|---|---|---|
| | £ | £ | £ | £ |
| In India (permanent) - - | 77,460,922 | 78,369,377 | 908,455 | — |
| In England (permanent) - - | 130,307,090 | 130,296,261 | — | 10,829 |
| „ (temporary) - - | 4,000,000 | 3,500,000 | — | 500,000 |
| Total - - £ | 211,768,012 | 212,165,638 | 397,626 | — |

In India a loan of one crore and a half of rupees (£1,000,000) was raised at an average price of about 97·6, while debt to the amount of £91,545 was discharged. In England £1,500,000 India 3 per cent. Stock was issued (mainly to discharge Great Indian Peninsular Railway Debentures) at an average price of £101 10*s.* 2*d.* per cent. Of the £4,000,000 sterling bills which fell due in June, September, and December 1902, and March 1903, £3,500,000 were replaced at average prices varying from £2 18*s.* 4*d.* to £3 11*s.* 1*d.* per cent., and £500,000 were paid off without replacement.

## OTHER OBLIGATIONS OF THE GOVERNMENT OF INDIA.

Other obligations.

Particulars regarding the obligations of the Government of India other than the permanent or temporary debt, and of loans by the Government of India and the Provincial Governments, are given in the following tables :—

### OBLIGATIONS.

| — | Amount outstanding 31st March 1902. | Amount incurred 1902-03. | Amount discharged 1902-03. | Amount outstanding 31st March 1903. | Increase 1902–03. | Decrease 1902–03. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Savings Bank Deposits | 8,404,415 | 3,392,085 | 2,755,625 | 9,040,875 | 636,460 | — |
| Deposits of Service Funds. | 1,141,595 | 95,216 | 78,919 | 1,157,892 | 16,297 | — |
| Excluded Local Funds | 222,293 | 690,634 | 669,824 | 243,103 | 20,810 | — |
| Railway Funds - - | 73,420 | 54,567 | 52,744 | 75,243 | 1,823 | — |
| Deposits of Sinking Funds. | 72,427 | 9,504 | — | 81,931 | 9,504 | — |
| Special Loans - | 1,130,176 | — | 3,374 | 1,126,802 | — | 3,374 |
| Treasury Notes - | 29,861 | — | — | 29,861 | — | — |
| Departmental and Judicial Deposits. | 3,443,573 | 16,701,174 | 16,589,506 | 3,555,241 | 111,668 | — |
| Total - - | 14,517,760 | 20,943,180 | 20,149,992 | 15,310,948 | 793,188 | — |

FINANCE.

## LOANS BY THE GOVERNMENT OF INDIA AND THE PROVINCIAL GOVERNMENTS.

| — | Amount outstanding 31st March 1902. | Amount advanced 1902 03. | Amount repaid 1902-03. | Amount outstanding 31st March 1903. | Increase 1902-03. | Decrease 1902-03. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Loans by the Government of India to Port Trusts, Municipalities, Native States, &c. | 8,817,102 | 669,473 | 687,083 | 8,799,492 | — | 17,610 |
| Loans by the Provincial Governments. | 3,886,360 | 591,511 | 679,098 | 3,798,773 | — | 87,587 |
| Total - - | 12,703,462 | 1,260,984 | 1,366,181 | 12,598,265 | — | 105,197 |

Cash balances.

## CASH BALANCES.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

| — | On 1st April. | | | Increase or Decrease. | |
|---|---|---|---|---|---|
| | 1901. | 1902. | 1903. | In 1901-02. | In 1902-03. |
| | £ | £ | £ | £ | £ |
| In India - - | 10,598,981 | 11,880,301 | 12,082,416 | +1,281,320 | +202,115 |
| In England - - | 4,091,926 | 6,693,137 | 5,767,787 | +2,601,211 | *—925,350* |
| Total - - | 14,690,907 | 18,573,438 | 17,850,203 | +3,882,531 | *—723,235* |

Coinage and paper currency.

## COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints in India was :—

| — | 1901-02. | 1902-03. |
|---|---|---|
| | £ | £ |
| Silver - - - - | 7,537,597 | 12,383,966 |
| Copper - - - - | 90,761 | 91,765 |
| Total - - £ | *7,628,358* | *12,475,731* |

The silver coinage in 1902–03 consisted of 112,722,680 rupees, 2,471,516 quarter rupees, 4,434,304 eighth rupees, and 31,671,117 British dollars for use in Singapore, Penang, and Hong Kong. A small part of the rupee coinage was undertaken on behalf of the Native State of Indore : the balance was for circulation in British India.

The receipts and expenditure of the Indian Mints were as follows :—

| — | 1901-02. | 1902 03. |
|---|---|---|
| | £ | £ |
| Receipts - - - - | 555,369 | 411,238 |
| Expenditure - - - - | 504,029 | 424,014 |
| Net Receipts - - | *51,340* | *—12,776* |

The net profit on the coinage of rupees, amounting to £264,028, which is included in "expenditure" in the preceding table, was transferred to the Gold Reserve Fund, which, on the 31st March 1903, consisted of Consols of the nominal value of £4,052,561 and a sum of £1,028 held in the Treasury balances in India. FINANCE.

*Paper Currency.*—On the 31st of March 1903 the value of notes in circulation was £23,815,738, being greater by £2,708,209 than on the corresponding date in 1902. The paper currency reserve was, in gold £9,859,565, in silver £7,289,510, and £6,666,663 invested in securities of the Government of India.

## RATE OF EXCHANGE.

In 1901–02 the Secretary of State for India in Council sold Bills and Telegraphic Transfers on the Treasuries in India for Rs. 27,58,95,050, and received for them £18,379,611; the average rate was thus 1*s.* 3·988*d.* per rupee. The Bills and Telegraphic Transfers sold in 1902–03 amounted to Rs. 27,74,67,265; the sterling received was £18,499,946; and the average rate was 1*s.* 4·00184*d.* per rupee. Rate of exchange.

## CHAPTER VI.

Surveys.

## SURVEYS.

### Survey of India Department.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical surveys, forest and cadastral surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year 1901–02. Particulars of the progress of forest and cadastral surveys, which are carried out partly by local agencies, are given in the chapters on forests and land revenue. The Survey Department has now a general control over the forest surveys, and in most provinces over the cadastral surveys. The recent Bombay survey, however, was conducted by a separate department, and there is also a Madras Survey Department in charge of the operations in that Presidency.

Reviewing first the operations of the Survey of India Department as a whole, the field operations of the year were carried on by three double and 15 ordinary parties and two detachments. Of these, one party was employed on trigonometrical surveys; one double and six ordinary parties on topographical surveys; one double and two ordinary parties on forest surveys; one double and two ordinary parties on cadastral surveys; two detachments on traverse surveys; and four parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical.

The party (No. 24) which was engaged on trigonometrical work, was employed in completing the Manipur Minor Meridional series, extending it southwards over the Kyaukpyu Yomas, in the neighbourhood of Mount Victoria. The work was completed, and a very satisfactory junction effected with two stations of the Burma Coast series.

Topographical.

The total area topographically surveyed during the year was 8,801 square miles of new survey and 10,084 square miles of revision survey; 62 per cent. of this area was surveyed on the 1-inch scale, the remainder for the most part on the scale of 2 inches to the mile. Parties Nos. 11 and 21, engaged in Upper Burma, were amalgamated during the year, and the aggregate area completed by them amounted to 2,663 square miles on the 1-inch scale, besides some minor operations. No. 10 party was engaged in the eastern portion of Upper Burma in revising and adding to the maps produced by reducing the cadastral sheets, inserting hills and other topographical detail. This work was carried out over the large area of 4,100 square miles, at a cheap rate. Another party, No. 3, engaged in Lower Burma, completed 1,255 square miles of detail survey, for the most part on the 1-inch scale, besides the usual triangulation, and revised maps reduced from cadastral surveys over an area of 1,048 square miles. The whole question as to how far topographical surveys should be carried in Burma is under discussion, the quarter-inch reconnaissance survey which was commenced as soon as Upper Burma was occupied being, over large areas, at present the only guide to the topography of the country. No. 12 party continued the survey of Sind on the 2-inch scale, and completed an area of 1,597 square miles, besides a special survey of the desert portions of the Khairpur State. The work of No. 15 party consisted in topographical survey of 4,483 square miles in Sind and Kashmir, in addition to reconnaissance survey over a large area on the frontier. They also commenced the survey of the cantonments in the Bengal command, completing the work in eight cantonments and bazars. The Himalaya party, No. 18, having completed its work in the Kangra district, was transferred to the plains of the Punjab, to compile a topographical map from the large scale *patwari* maps of the province. Three thousand square miles of the Montgomery and Lahore districts were thus mapped, besides riverain surveys, and boundary and other surveys near Simla. The survey of the Lushai hills having been closed, No. 14 party was strengthened and transferred to the United Provinces, to take up the topographical survey

of Allahabad and other districts; 1,988 square miles were prepared by traversing, and an area of 203 square miles was mapped. SURVEYS.

Two parties (Nos. 22 and 23) were combined and employed on latitude observations at stations on the Calcutta meridional series and Darjeeling triangulation. The zone of positive deflection was found to extend very much closer to the foot of the hills than was expected, and the transition from a positive deflection to a large negative one was found to take place with startling rapidity. An interesting paper by Major Burrard, on the whole question of local attraction in India, especially with reference to the effect of the mass of the Himalayas, was published among the professional papers of the Department during the year. Steps have since been taken to procure from Europe accurate pendulum apparatus for the further investigation of this problem. Special operations. *Geodetic.*

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year by No. 25 party at 13 stations, of which seven are permanent and six are temporary. The new tidal observatory at Bassein was opened during the year. The levelling detachment was again employed on the Eastern Bengal State Railway, and later in the year in Bengal from Siliguri to Sonakhoda base-line, and in Assam from Fakirganj to Gauhati, completing 259 miles of double levels. During the following season it was to be employed in Upper Burma. *Tidal and levelling operations.*

A Magnetic Survey party commenced field work during the year, confining its operations to the country west of the line joining the Bombay and Dehra Dun observatories, the only base stations in actual work. Three observers only were employed in this first season, and magnetic determinations were made at 163 stations. The Kodaikanal base has since been installed; and that at Barrackpore, which will take the place of the Calcutta one, rendered useless by the electric tramways, is under construction. *Magnetic.*

Under the geographical head are included surveys and reconnaissances which are executed on the scale of half an inch to a mile or smaller scales. During the year an area of 7,938 square miles of survey on the quarter-inch scale was completed in Kashmir, and 4,556 square miles on the half-inch scale in Sind; and a very large addition made to our knowledge of the Indian frontier geography, some 63,000 square miles being surveyed and reconnoitred in the Shan States and on the North-west Frontier. Geographical surveys and explorations.

The Drawing Office was engaged as usual in the compilation and revision of the various general maps, and on additions to standard sheets when fresh material was available, besides publishing and preparing the sheets received from the field parties, issuing cadastral maps, and miscellaneous work. Two sheets of the new $\frac{1}{1,000,000}$ map of India are practically completed, and two other sheets are well advanced. The 32-mile railway and canal map has been published, but is not entirely satisfactory. The new 32-mile lithographed map of India was in hand, as well as general maps on smaller scales. The usual large quantity of provincial and other maps and plans kept the drawing, photographic, and lithographic branches busy during the year. Map production.

## OTHER SURVEYS.

The marine survey vessel "Investigator" completed a survey of a large portion of the Tenasserim coast, from Button Island to Toby Rock, and then proceeded to the Chittagong coast, where the coastline was sounded and charted for 60 miles; and subsequently to the Andaman Islands, where it was required to take soundings of minor harbours and inlets. The "Nancowry" completed a survey of Cox's Bazar, and then joined the "Investigator" in its work on the Chittagong coast. An examination of the Megna river, in Eastern Bengal, conducted by the officers and crew of the "Nancowry," showed that the river had altered greatly since it was last surveyed in 1884, and that it would be futile to make a detailed survey. Owing to its changes, its strong tides, and its heavy bores, it is dangerous for any but craft of very light draught. Marine surveys.

The Geological Survey Department during the year 1902–03 was engaged in the investigation of coal fields on the Shillong plateau in Assam and in the Mianwali district of the Punjab, on neither of which was a decision reached during the year; also of promising deposits of chrome iron in Baluchistan and fire-clay in Assam. A survey of the auriferous region of Geological.

Surveys. Chota Nagpur was continued and completed, but the results were not favourable, as they did not include a single instance which could reasonably be regarded as a legitimate mining proposition. Other inquiries of an economic nature were also carried out in connection with iron and manganese in the Dhar State, an oilfield in Burma, and other matters, with inconclusive results. Geological surveys not having a directly economic character were also in progress in many parts of India, including Assam, Baluchistan, Burma, the Dhar State in Central India, Kashmir, and Madras, while an officer of the Department accompanied Professor Koken, of Tübingen, on a tour of observation in the Salt Range of the Punjab.

Botanical. The Botanical Survey of India is also being conducted not only from a scientific, but also from an economic and agricultural point of view. Various investigations were carried out by officers of the Department, or by native collectors, with a view to the completion of the botanical records and publications. The economic questions dealt with were chiefly concerned with the Indian yams, the sources of the fibres vaguely classed as Indian hemp, the sources and nature of the supply of indigo seed, and similar matters. The number of plants distributed from the Calcutta Botanic Garden during the year was 37,368.

Archæological. The Archæological Surveyor of Western India was occupied in visits to monuments in Ahmedabad, Bijapur, and other parts of Bombay, and also toured with the Director-General of Archæology in Central India, Rajputana, and Sind. The expenditure on the conservation of ancient monuments in the Bombay Presidency amounted to £1,120. In the United Provinces a report on Akbar's tomb at Sikandra near Agra, by the late Mr. Smith, was submitted to the Government; the staff was engaged in surveying historical buildings in the Agra fort. The amount of £10,570 was spent in the province during the year from Government revenues on conservation. The Surveyor of the Punjab circle reports that several important works were commenced and partly completed, with a view to the conservation of monuments, an allotment of £4,300 having been made for the purpose. He also submits a memorandum on the preservation of archæological material in the Peshawar district. In Madras the expenditure is given as £1,147. The excavation of prehistoric remains at Adinachallur is the most notable operation of the year, and resulted in the unearthing of a very large number of objects of great interest. In Bengal, the Archæological Surveyor visited seven districts, and also Assam, in the course of his tours. The Director-General was to have visited Bengal, but the visit had to be postponed. In Burma, £2,746 was spent on conservation. Much progress was made in improvements to the Mandalay palace and its surroundings. The Director-General of Archæology has been engaged in tours of inspection in several provinces, in the course of which he is able to give advice to the local authorities, with a view to the organisation of archæological efforts on a consistent plan throughout India.

## Meteorological Department.

Meteorological Department. Meteorological observations were recorded during the year 1902–03 at 226 stations, of which 190 are maintained by the Government of India. Of these latter, seven were first-class observatories and 38 second-class, the remaining 145 belonging to class 3, in which less frequent observations are taken. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms and earthquakes. Daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings, are issued.

The forecast of the probable rainfall for the monsoon of 1902, issued in June of that year, was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a rainfall of not more, and possibly less, than normal

strength on the average of the whole season, though it was anticipated there would be no abnormal delay in the setting in of the currents. This forecast was not quite satisfactory, as the prolonged weakness of the Arabian Sea current until the middle of August was not anticipated. But the general distribution of the rainfall, as indicated by the forecast, was on the whole in moderate accordance with the facts, except in the cases of the Central Provinces and Berar, where the rainfall was in considerable to large defect, and where there were partial crop failure, owing chiefly to deficient rainfall and the early termination of the monsoon rains. Besides these two provinces, the only province in which the rainfall of the monsoon season differed by 10 per cent. from the average was Madras, where there was an excess of 18 per cent. SURVEYS.

The forecast of the winter rains, from December 1902 to February 1903, was drawn up in December 1902, and predicted normal to abundant rainfall in the whole of North-Western India and in the Gangetic plain. The result showed, however, a rainfall in North-Western and Central India much less than was anticipated; and this was only partially compensated by the rainfall in March, due to the continuance of cold weather conditions in that month.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings, three of them on the "brief" system. On the western side of India warnings were sent to 24 ports, to seven of them on the "extended" system. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 759 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients to have been timely and satisfactory, but criticisms and suggestions are invited, and, in cases where they have been received, have been adopted.

The average rainfall and the actual rainfall of the three years 1898 to 1900, in the regions into which India has been divided, were as follows:— Rainfall.

| Meteorological Division. | Area, Square Miles. | Number of Stations. | Normal Rainfall. | Actual Rainfall. | | |
|---|---|---|---|---|---|---|
| | | | | 1900. | 1901. | 1902. |
| | | | *Inches.* | *Inches.* | *Inches.* | *Inches.* |
| Punjab Plains | 120,000 | 29 | 21·28 | 24·48 | 18·08 | 15·92 |
| United Provinces of Agra and Oudh. | 83,500 | 44 | 38·15 | 36·97 | 32·40 | 33·17 |
| Rajputana, East | 67,000 | 29 | 25·98 | 28·69 | 14·78 | 19·73 |
| Rajputana, West | 58,000 | 10 | 11·71 | 10·61 | 5·76 | 7·62 |
| Central India States | 91,000 | 25 | 42·78 | 42·18 | 41·50 | 36·87 |
| Behar | 30,000 | 15 | 45·58 | 43·64 | 38·77 | 44·03 |
| Western Bengal | 38,000 | 14 | 53·21 | 61·93 | 47·82 | 47·60 |
| Lower Bengal | 54,000 | 28 | 66·16 | 71·66 | 65·82 | 70·51 |
| Assam and Cachar | 61,000 | 17 | 95·03 | 82·23 | 89·36 | 106·27 |
| Orissa and Northern Circars | 27,000 | 32 | 52·10 | 54·79 | 46·23 | 49·65 |
| Central Provinces, South | 61,000 | 19 | 52·47 | 58·68 | 53·38 | 35·51 |
| Berar and Khandesh | 43,000 | 13 | 35·40 | 34·46 | 34·47 | 29·85 |
| Gujarat | 54,500 | 13 | 33·02 | 29·32 | 16·00 | 29·92 |
| Sind and Cutch | 68,000 | 10 | 8·26 | 6·13 | 2·70 | 9·25 |
| North Deccan | 48,000 | 13 | 30·60 | 27·55 | 30·52 | 32·60 |
| Konkan and Ghâts | 16,000 | 11 | 139·15 | 155·79 | 139·09 | 134·78 |
| Malabar and Ghâts | 18,000 | 8 | 114·93 | 126·69 | 119·77 | 124·76 |
| Hyderabad | 74,000 | 17 | 33·27 | 30·77 | 32·17 | 28·26 |
| Mysore and Bellary | 58,000 | 18 | 29·15 | 25·90 | 28·41 | 30·43 |
| Carnatic | 72,000 | 36 | 36·84 | 33·08 | 39·13 | 47·75 |
| Arakan | 11,000 | 6 | 154·30 | 131·41 | 150·62 | 156·44 |
| Pegu | 32,500 | 7 | 72·55 | 78·55 | 73·13 | 66·43 |
| Tenasserim | 10,500 | 4 | 173·33 | 179·15 | 175·15 | 151·11 |
| Upper Burma | ? | 13 | 39·50 | 44·19 | 38·30 | 36·85 |

Over the whole of India the rainfall of 1902 was 3·92 inches below the normal, or 4·13 inches if Burma be excluded.

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# CHAPTER VII.

## LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

The subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the financial year 1902-03.

DETAILS of LAND REVENUE and EXPENDITURE.

| — | India (General) and Berar.* | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Ordinary Land Revenue - | 540,578 | 2,639,908 | 4,240,230 | 1,409,569 | 106,119 | 1,283,101 | 523,130 | 399,761 | 3,883,744 | 2,102,577 | 17,128,717 |
| Recovery of Survey and Settlement Charges. | — | 25,228 | — | — | — | — | — | — | — | — | 25,228 |
| Sale of Proprietary Right of Government in Land. | — | 790 | 150 | 70 | — | — | — | 76 | — | — | 1,086 |
| Assessment of alienated lands, less quit-rents. | — | 5,850 | — | 13,656 | 268 | — | — | — | — | 634,109 | 657,883 |
| Sale of Waste Lands and Redemption of Land Revenue. | 80 | 10,887 | 487 | 73,406 | 1,221 | 5,280 | 28 | 306 | 2,834 | — | 94,529 |
| Capitation Tax, or House Tax levied in lieu. | 449 | 647 | — | — | — | 652,056 | — | — | — | — | 653,152 |
| Receipts for the Improvement of Government Estates. | — | 43,529 | — | — | — | — | — | — | — | — | 43,529 |
| Fisheries and other Receipts classed as Miscellaneous. | 8,588 | 16,464 | 33,296 | 38,800 | 6,960 | 284,521 | 4,267 | 30,395 | 202,365 | 21,558 | 647,114 |
| Total Gross Revenue - | 549,695 | 2,743,303 | 4,274,163 | 1,535,401 | 114,568 | 2,224,958 | 527,425 | 430,538 | 4,088,943 | 2,762,244 | 19,251,238 |
| *Deduct* portion credited to Public Works for irrigation. | — | — | 89,065 | 100,403 | 3,152 | 308 | — | — | 511,499 | 109,966 | 814,393 |
| Total credited to Land Revenue for 1902-03. | 549,695 | 2,743,303 | 4,185,098 | 1,434,998 | 111,416 | 2,224,650 | 527,425 | 430,538 | 3,577,444 | 2,652,278 | 18,436,845 |
| Total for 1901-02 - | 93,680 | 2,720,775 | 4,215,833 | 1,661,392 | 58,316 | 2,209,882 | 579,036 | 411,152 | 3,395,544 | 2,942,407 | 18,288,018 |
| EXPENDITURE. | | | | | | | | | | | |
| District Administration - | 34,424 | 209,733 | 232,828 | 120,890 | 20,231 | 152,753 | 59,063 | 37,756 | 276,966 | 204,991 | 1,349,635 |
| Survey and Settlement - | 9,551 | 47,813 | 36,801 | 37,163 | 17,250 | 52,076 | 16,398 | 3,022 | 52,630 | 8,077 | 280,781 |
| Land Records and Agriculture. | 10,450 | 6,702 | 240,129 | 99,763 | 9,132 | 42,790 | 42,320 | 14,239 | 122,642 | 161,820 | 749,987 |
| Charges directly connected with the collection of Land Revenue. | 5,491 | 37,861 | 13,306 | 1,396 | 2,049 | 125,881 | 2,434 | 10,957 | 239,705 | 89,849 | 528,929 |
| Total Charges in India. | 59,916 | 302,109 | 523,064 | 259,212 | 48,662 | 373,500 | 120,215 | 65,974 | 691,943 | 464,737 | 2,909,332 |
| Charges in England - - - - - - - - - - - - | | | | | | | | | | | 148 |
| Total Charges, 1902-03 - - - - - - - - - - - - £ | | | | | | | | | | | 2,909,480 |

* From 1st October 1902 only.

The chief source of revenue in India has from ancient times been a share of the produce of the land. Nearly two-thirds of the total population

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returned some form of agriculture as their principal means of subsistence at the last census. The administration of the land revenue is, therefore, even more important from a social and political than it is from a financial point of view; and a proper treatment of the subject involves not only an account of the revenue collections but also some notice of the relations between landlord and tenant, as well as between the Government and the revenue payer, and of changes in ownership or occupancy of the land.

## REVENUE SURVEYS AND SETTLEMENTS.

Indian revenue settlements are of two kinds; permanent, by which the demand of the State has been fixed and made unalterable for ever, and temporary, under which the State demand is revised at recurring periods of greater or less duration. The permanently settled districts cover the greater part of Bengal, parts of the United Provinces and Madras, and a few other isolated tracts. The temporarily settled tracts fall into two broad divisions; Zamindari (in some provinces called Malguzari or Talukdari), where the landlord pays the land revenue to the State, whether he cultivates the land himself or by means of rent-paying tenants; and Ryotwari, where the cultivator as a general rule pays direct to the State. In both these tracts the rates of land revenue are settled for periods varying, according to the province, between ten and thirty years, the latter figure prevailing in all the larger provinces with the exception of the Punjab and the Central Provinces, where settlements are usually made for twenty years. In the Zamindari areas, where estates range from hundreds to many thousands of acres, the periodical assessment is a share, generally rather less than one-half, of the rental enjoyed by the proprietors; in the Ryotwari tracts, where the estates are small and cultivated by peasant proprietors, the periodical assessment is imposed on the cultivated area at rates per acre fixed with reference to the productiveness of the land, and varying in different provinces from one-fifth to one twenty-fifth part of the gross value of the produce. The United Provinces of Agra and Oudh, the Punjab, the Central Provinces, and Orissa mainly contain estates held by proprietary communities or large proprietors; while in Bombay, Burma, Assam and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of the surveyed areas in which the various tenures prevail, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including mortgage with possession, and excluding inheritances and temporary transfers) during the agricultural year 1901–02. The figures are in thousands of acres :—

| — | Ryotwari (peasant proprietors). | Zamindari (larger proprietors) and Village Communities. | | Total. | Transfers |
|---|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | | |
| Upper Burma | 50,488 | — | 6 | 50,494 | 102 |
| Lower Burma | 53,316 | 5 | 155 | 53,476 | 467 |
| Assam | 26,150 | 3,909 | 1,276 | 31,335 | 48 |
| Bengal | — | 81,984 | 15,566 | 97,550 | * |
| United Provinces—Agra | — | 6,160 | 46,437 | 52,597 | 923 |
| „ „ Oudh | — | 1,156 | 14,182 | 15,338 | 281 |
| Punjab | — | — | 62,222 | 62,222 | 555 |
| North-West Frontier Province | — | — | 8,498 | 8,498 | 181 |
| Sind | 30,078 | — | — | 30,078 | 118 |
| Bombay | 44,614 | — | 3,960 | 48,574 | 795 |
| Central Provinces | 1,515 | — | 42,878 | 44,393 | 696 |
| Berar | 11,333 | — | — | 11,333 | 223 |
| Madras | 60,773 | 29,665 | — | 90,438 | 500 |

* Figures not available.

The Ryotwari area may be said, therefore, to embrace 278 million acres, the Zamindari area under permanent settlement 123 millions, and under temporary settlement 195 millions. In the permanently settled tracts of

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Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the United Provinces the incidence is about Re. $1\frac{2}{3}$ per acre of cultivated land; in the similar tracts of Madras it is considerably lower than this. In the latter tracts the land revenue represents usually something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce; the average incidence of the land revenue per acre of fully assessed cultivated land in the temporarily settled tracts, as given in the returns for 1901–02, is approximately Re. $1\frac{7}{8}$ in the United Provinces, Re. $1\frac{1}{13}$ in the Punjab, Re. $1\frac{1}{5}$ in Berar, Rs. $2\frac{1}{4}$ in Lower Burma, Rs. $2\frac{2}{5}$ in Assam, Rs. $2\frac{2}{5}$ in Sind, Re. $1\frac{1}{3}$ in Bombay, 9 annas in the Central Provinces, Rs. $2\frac{1}{3}$ in Madras, and Re. $1\frac{1}{2}$ in Bengal. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall or means of irrigation, and according to the facilities for carrying produce to markets or to the seaboard. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

Bengal.

Survey and settlement operations were in progress during the year ending in September 1903 in sixteen districts of Bengal. The total area included in these operations was 17,244 square miles, contained in 17,348 villages. The area cadastrally surveyed was 3,757 square miles; preliminary records were written for 4,039 villages; records were attested for 3,213 villages, and finally published in 1,872 villages. The rents of nearly 89,000 tenants were settled. The total area of which a record of rights has been completed in settlements under the control of the Director of Land Records is 32,482 square miles. The cadastral survey and settlement operations on the permanently settled lands of North Behar had been finished, and the Darbhanga report was passing through the press. The Champaran and Muzaffarpur reports have been approved. They contain a mass of information of the greatest importance as to crops, incidence of rent, the pressure of the population on the soil, and the average income of the petty proprietor, the tenant cultivator, and the agricultural labourer. According to Mr. Stevenson-Moore, the Settlement officer, 90 per cent. of the population lives in normal years in a very moderate state of comfort; but the landless day labourer, who represents 9 per cent. of the population of the Muzaffarpur district, very soon feels the effect of times of scarcity. The advantages of the survey are very great; it is said, for instance, that rents "for which ryots held no receipts, of which landlords kept no record, and which they enhanced at their pleasure" have now been ascertained, recorded, and fixed.

The settlement of rights in the Backerganj district, and in Ranchi, North Bhagalpur, and North Monghyr made good progress, and similar work was in progress in private estates in Purnea, Gaya, Singhbhum, and the Sonthal Parganas, and in other districts. Settlements of land revenue were also being made in various temporarily settled tracts and Government estates.

United Provinces.

In the United Provinces of Agra and Oudh cadastral surveys were completed over 2,507 square miles and records were written for 2,823 square miles. The work was for the most part performed by the village accountants, whose mapping is said to be excellent, though their record work is not so good. The revision settlements in Oudh are nearly completed. Assessments sanctioned during the year for three portions of the Gonda district, which alone remained to be dealt with under regular revision of settlement, showed increases of one, 18, and 24 per cent. respectively. The assessments recently imposed in the Hardoi district were being revised. In the Agra Province

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the settlement of the Shahjahanpur and Meerut districts was completed. The report on the Meerut settlement, which has been received, shows that cultivation and irrigation have both advanced, and that the landholders, as a class, are in comfortable circumstances. The assessment is increased by 34·4 per cent. Operations were continued in eight districts where they had been begun in previous years, and were almost concluded in all but Azamgarh. Fresh assessments were sanctioned for several sub-divisions, the rate of increase varying from 6 per cent. to 31 per cent. Work was also begun in the Mainpuri, Etah, and Jalaun districts, while preparations were made for its extension to part of Allahabad.

The introduction of the new Tenancy Act in 1901 in the Province of Agra, as described in last year's issue of this Statement, is the most important change relating to landlords and tenants; but owing to the difficulty of comparing the procedure under the old and the new Acts it is impossible to draw any conclusions from the statistics of ejectments. But there seems to be ground for the view that the change in the law has not, as yet, tended to a diminution in ejectment cases, though the number of surrenders by tenants has declined substantially. On the other hand, it is reported that the relations between landlords and tenants have become more friendly. The year was one of rest and recuperation, and its result was certainly to establish on a firmer basis the returning prosperity of the provinces. The area of holdings in the Agra Province is given as 27·6 millions of acres, of which 2·4 millions were uncultivated; of this total, 8·8 millions were held by tenants with occupancy rights, 11·1 millions by ordinary tenants, and one million by ex-proprietary tenants with privileged rights, while the remainder was rent free or nominally rented. In Oudh, the holdings amounted to 9·6 millions of acres, of which all but 2 millions were held by ordinary tenants. The rent-rolls for all districts of the United Provinces show that the rental demand of the year 1901–02 was £8,708,700, against which the landlords realised £7,876,600 during the year, £1,072,600 being on account of arrears of previous years. The percentage of recorded rent collections to the total rent demand in the year under report fell from 94 to 90 per cent. in the two provinces together; but the record of collections is defective. The rent-rolls include the reduced rents paid by privileged tenants, and do not take into account any computed rents on accounts of lands cultivated by proprietors.

The number of transfers of proprietary interests in land was higher in both provinces than the figures of the preceding year, but the increase is more than accounted for by the rise of 13,800 in the number of succession cases. The following table shows the number of sales of revenue-paying land and of mortgages for recent years:—

| | Sales of Revenue Paying Land. | | Mortgages. | |
|---|---|---|---|---|
| | Agra. | Oudh. | Agra. | Oudh. |
| 1894-95 | 17,052 | 2,717 | 8,256 | 7,144 |
| 1896-97 | 22,599 | 3,487 | 13,388 | 8,205 |
| 1898-99 | 18,935 | 4,944 | 8,262 | 10,874 |
| 1900-01 | 21,657 | 4,797 | 9,778 | 9,328 |
| 1901-02 | 20,567 | 4,353 | 9,177 | 9,029 |

Punjab.

In the Punjab orders were passed during the year on the assessment report of the Alipur and Muzaffargarh tahsils, the increase being estimated at 21 per cent.; and the Sirsa-Fazilka settlement operations were brought near their close, the result being an increase of about £10,000. Other settlement operations were in progress in parts of six other districts. There has been a notable decrease in the number of transfers of land, which may safely be ascribed to the operation of the Alienation of Land Act. The chief fall occurred under the heading of mortgages with possession or transfers by order of court for debt; the area of cultivated land transferred under these headings amounted to 207,500 acres only, as compared with 325,100

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acres in the preceding agricultural year, 1900–01. But the heading of sales also shows a decrease, the area so transferred being 283,000 acres of cultivated land, against 366,200 acres in the preceding year. The proportion of the cultivated area of the present province which is under mortgage works out at 12·5 per cent., against a proportion of 13 per cent. of the cultivated area of the old province, with the separated frontier districts, in 1900–01.

The normal effect of the Alienation of Land Act cannot be gauged with accuracy as yet; but it is observed that there is no trace of any sudden or violent depreciation of the value of land, though land prices recorded before the passing of the Act, representing in many cases loans swollen by high interest charges, gave an exaggerated idea of land values; that zamindars generally approve of the Act; and that though some of the richer moneylenders may be abjuring investments in land and seeking other employment for their capital, it is probable that the small village moneylenders as a class will continue their customary dealings with zamindars on a healthier system of credit. The rules and orders under the Act have worked well, and few devices for evading it have so far been detected.

Burma.

In Burma, a party of the Survey of India completed cadastral survey in the Kyaukpyu district, and did some traversing and cadastral work in the Shwebo and Pakokku districts. Satisfactory progress was made in settlement work. Original settlements were sanctioned, and the rates notified, in Yamethin and Sagaing, and revision settlements were approved and notified for parts of the Tharrawaddy and Akyab districts. In each case there was an increase of revenue, amounting in the aggregate of these four tracts to £40,000. The area under supplementary survey (37,634 square miles) was much higher than in 1901-02, owing to the inclusion of the Sagaing, Yamethin and Myingyan districts, where settlement had been completed and the establishment employed on land records work was handed over by the settlement officer to the revenue authorities.

A rapid transfer of cultivated lands to the hands of non-agriculturists and an increase in the areas sublet were marked and regrettable features of the year in many districts. Legislative measures to restrict the alienation of land have been in contemplation, but the question required to be more fully considered. It is to be observed that the relations between the non-agricultural landlords and their tenants are usually of a satisfactory character. The area let at full rents is given as 1,926,000 acres, and the average rent as about Rs. 9 per acre. Sales and mortgages of land increased, and the area under mortgage in Lower Burma at the end of the year amounted to 682,000 acres, or over 9 per cent. of the occupied area.

Central Provinces.

Settlement operations in the Central Provinces during the agricultural year 1901–02 suffered both from the bad health of the staff in some localities and from the failure of the rice crop, which necessitated an early return of of patwaris to their villages in connection with the possible necessity of relief measures. Settlement was completed and announced in one subdivision of the Raipur district, and work was done in four other districts. An important part of the year's work was the temporary abatement of rents and revenue in the districts of Narsinghpur, Wardha, Bhandara, Balaghat and Betul. where considerable relief was thus afforded to villages which had suffered from the previous famines and crop failures.

The returns of cultivating occupancy in the provinces show that 5 millions of acres were held by the proprietors, while $16\frac{1}{3}$ millions were held by tenants, at an average rent of 12 annas per acre; $2\frac{1}{3}$ millions of this were held by absolute occupancy tenants, at an average rate of Re. 1 per acre, settled for a period of 30 years; and more than 7 millions by occupancy tenants. The above figures leave out of account the 600,000 acres held under the ryotwari system. There was a general increase in the numbers of transfers of land, and the price of land disposed of by private sale was higher; but the consideration money paid in the case of sales over the province generally was, calculated on the land revenue, less than in the previous year. In some parts the value of land is low, but there are not wanting signs that it is recovering its value in many parts of the province.

LAND REVENUE.

The survey and settlement of certain temporarily settled estates in Sylhet was concluded during 1902–03, and resulted in a net increase of rather less than 15 per cent. in the demand. The decennial settlement of the Assam Valley was due to expire in 1903, and re-settlement operations were started in 1902 in Kamrup and Sibsagar districts, good progress being made with the work. The settlement of land for ordinary cultivation showed a satisfactory advance in the Assam Valley and in Cachar, but did not make much progress during the year in Sylhet. There was little demand for land for extensions of tea cultivation, and the area settled for this purpose is returned as 1,141,500 acres. A small portion of the land revenue is obtained from permanently settled estates in Sylhet and Goalpara. Of the remainder, some is obtained under annual re-settlements, some by periodical revisions. The permanently settled area was 3,930,000 acres, including a large proportion of waste, and it yielded a revenue of £25,100; the area under periodical or annual settlement was 2,694,500 acres, and it paid about Rs. $2\frac{1}{2}$ per cultivated acre.

Assam.

In Madras, cadastral re-survey prior to re-settlement was in progress during the year 1902–03 in the Kistna, Kurnool, and Nellore districts, and the area covered was 1,304 square miles, including revision. Besides this work, 97 square miles of original survey was carried out in hill villages, and 45 square miles of survey over Government lands excluded from former surveys, and 898 square miles in proprietary estates, under the Act of 1897, which authorised the survey of such estates, either upon the request of the landholders or, in special cases, on the initiative of the Government; and there was also completed 492 square miles of block survey. The work was done under the Madras Survey Department in six divisions, and very little of it is found on inspection to need doing over again. The most important settlement work done during the year was the initial settlement of the South Canara and Malabar districts. Revised rates were introduced into some parts of these areas. The land revenue demand in the districts settled and resettled since the commencement of the operations was £655,000 in the agricultural year 1901–02, or 27 per cent. in excess of the demand prior to the settlements; and the total expenditure of the Settlement Department up to June 1903 was £909,600. Besides the operations in the above-named districts, operations were begun in parts of Kistna and Salem. In the ryotwari lands the extent of "dry" holdings increased by rather more, and that of "wet" holdings by rather less than 1 per cent.; and the area not available for cultivation, as well as the areas of unoccupied arable land, and of occupied land left waste, diminished during the year. In comparison with the figures for the agricultural year 1875–76, the year before the great Madras famine, the area under holdings shows an advance of nearly three million acres.

Madras.

The Bombay Survey Department ceased to exist in October 1900, but small establishments were maintained during the year 1902–03 for special work in Gujarat, the Deccan, the Southern Division, and Sind. These special operations do not require notice. Revised rates were announced during the year in subdivisions of Thana, Ratnagiri, Kolaba, Broach, and Kanara, and original settlements were introduced into 34 scattered villages in the Central Division. In Sind, revised rates for the Rohri taluka of the Sukkur district came into force at the beginning of the year. There was a decrease of more than 100,000 acres in the total area under cultivation in the Presidency, owing to a large contraction of the cultivated area in the Khandesh district. The decline which had occurred in the Northern Division during the two preceding years was arrested, and every district in that division, with the exception of Thana, showed an increase, the extension being most marked in Allahabad.

Bombay.

No survey operations were carried on during the year in Berar. The new rates of the revised settlement which had been sanctioned, but not introduced owing to the famine, were announced in seven taluks, and become payable in the spring of 1904. An ad interim and lower rate has been sanctioned for the first fifteen years, the final and higher rate becoming payable in the last fifteen years of the settlement. The percentages of increase shown by the ad interim rate vary between 21 and 32 per cent.; those of the final rate between 25 and 48 per cent.

Berar.

LAND REVENUE.

## COLLECTION OF THE REVENUE.

The fluctuations of the land revenue in past years may be seen in the following table:—

| | Land Revenue Receipts excluding Receipts due to Irrigation. | Variation (Average of Five Years, 1881-85=100). |
|---|---|---|
| | £ | |
| 1861-65 (five years' average) | 13,287,000 | 90·1 |
| 1866-70 " " | 13,327,000 | 90·4 |
| 1871-75 " " | 13,977,000 | 94·8 |
| 1876-80 " " (includes the great famine of South India). | 14,076,000 | 95·4 |
| 1881-85 " " | 14,748,000 | 100·0 |
| 1886-90 " " | 15,445,000 | 104·7 |
| 1891-95 " " | 16,522,000 | 112·0 |
| 1895-96 (single year) | 17,467,000 | 118·4 |
| 1896-97 " (famine year) | 15,983,000 | 108·4 |
| 1897-98 " | 17,122,000 | 116·1 |
| 1898-99 " | 18,306,000 | 124·1 |
| 1899-1900 " (famine year) | 17,205,000 | 116·7 |
| 1900-01 " | 17,503,000 | 118·7 |
| 1901-02 " | 18,288,000 | 124·0 |
| 1902-03 " | 18,437,000 | 125·0 |

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded £111,000 of land revenue in the year 1886-87, and £643,000 in the year 1902-03.

The total advances made by Government to cultivators in the financial year 1902-03 are given as follows in the Accounts of the Government of India:—

| | By the Government of India. | By provincial Governments (chiefly in Bombay). | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Advances for improvement of land | 7,533 | 148,814 | 156,347 |
| " relief of agriculturists and similar purposes. | 5,579 | 341,738 | 347,317 |
| Total | 13,112 | 490,552 | 503,664 |

The details for the agricultural year will be found below under each province.

The progress of the land revenue is now noticed province by province. The figures are taken from the land revenue reports, and differ in some instances slightly from those given above, which are from the corrected Accounts of the Government of India.

Bengal.

The rainfall of 1902-03 was generally well distributed in Bengal, and the average outturn of the crops was good, resulting in lowered prices in most districts. The land revenue of the province remains fairly constant, as most of it is under permanent settlement. The figures for the last three years are given as follows:—

| | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | £ | £ | £ |
| Permanently settled estates | 2,155,031 | 2,155,154 | 2,155,269 |
| Temporarily settled estates | 232,502 | 235,755 | 239,846 |
| Estates under the direct management of Government. | 279,027 | 281,771 | 288,837 |

The total amount collected during the year under report, including arrears, was slightly in excess of the current demand, 97¾ per cent. of the

LAND REVENUE.

current year's demand being realised in the year. This percentage is very satisfactory, the current year's revenue being collected with even greater completeness than in the good year 1899–1900; and the balance outstanding, of the current and arrear demand, was much less than is usual at the end of the year. The number of estates which became liable to sale for non-payment of Government dues was 13,010, and of these 1,279, or 9·8 per cent., were sold, against 1,328 in the previous year. Under the Public Demands Recovery Act, 151,100 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 230,570 in the previous year; attached property was sold in 7,042 cases, and 94 defaulters were imprisoned. Defaulters may deposit the amount due, with a penalty, within 30 days after the sale of the property under this procedure, and thus have the sale set aside.

The gross rental of the 43 districts in which the Bengal Cess Act was in force was returned for road cess purposes at £11,357,000 for the year 1902–03, which is £308,000 above the assessment of the previous year, as compared with £8,745,000 for 40 districts in 1873. The three added districts represent a rental of £301,000. The estates assessed to cess in the 43 districts numbered 423,200, of which 264,500 were revenue-paying, 49,800 revenue free, and 108,900 rent free holdings. The current demand of land revenue in these districts, including parts of Singhbum, in which the Cess Act is not in operation, amounted to £2,655,000, or about 23⅓ per cent. of the rental valuation given above. The actual percentage in the areas under the Cess Act would be rather lower than this figure. Advances to agriculturists under the Loans Acts amounted to £8,400 during the year, and 75 per cent. of the amount due for recovery was repaid. In the six years, 1896–97 to 1902–03, the total of the advances made amounts to £135,750, and of this £122,600 has been repaid and £500 remitted. Very little of the interest which had accrued was outstanding. The difference between the interest calculated at 3½ per cent., the rate at which the Government can borrow, and 6¼ per cent., the rate charged to borrowers, may be set against non-recoveries.

United Provinces.

The latest report on land revenue affairs in the United Provinces relates to the year ending 30th September 1902. The monsoon of 1901 was short-lived and capricious, but opportune rain at the most critical period saved the provinces from the results that would be expected to follow a season of this description, and the actual result was a moderate crop on an exceptionally large area.

The demand and collections of land revenue in the last three years are given as follows:—

| — | | 1899-1900. | 1900-01. | 1901-02. |
|---|---|---|---|---|
| | | £ | £ | £ |
| Land revenue, current and arrear | demand - - | 4,378,647 | 4,284,657 | 4,280,315 |
| | collections - | 4,227,066 | 4,221,819 | 4,174,487 |

The amount of the current demand has grown, and the proportion which collections of current revenue bear to the current demand has been very satisfactory in both the most recent years, reaching the proportion of 99½ per cent. of the current demand in 1901–02. The demand on account of arrears of land revenue from previous years has become less as the effects of famine disappear, and in April 1902 the account was finally cleared by the remission of all sums outstanding at the end of the previous revenue year. Another measure of the same character was the reduction of the demand in Bundelkhand by £36,600, with rebate of £11,700 in each of the next five years. Of coercive processes for recovery of sums due to Government, there were 31,817 writs, 2,909 arrests, 5,268 cases of attachment of movables, 394 of attachment of estates, and 30 sales. These figures are on the whole below those of the preceding year, the collection of revenue being carried out generally without much difficulty. The amount of the loans sanctioned under the Land Improvement Loans Act and the

LAND REVENUE.

Agriculturists Loans Act was £12,300. The total outstandings of these loans falling due during the year under report were £39,900, of which £24,200 was recovered. The outstanding balance at the end of the year under both Acts amounted to £18,800, of which the greater part has been remitted since the close of the year.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1902. The monsoon of 1901 was anything but good, and the winter rains failed even more completely than in the rainless famine winter of 1899–1900. The area sown was therefore below the average, and there was a general failure of crops on unirrigated land. The fixed land revenue demand for the year amounted to £1,374,500, of which only £1,197,500, or 86·6 per cent., was collected, owing to the unfavourable seasons, suspensions being granted to the amount of £170,600. The Punjab shared to the amount of £264,000 in the provision made by the Budget of March 1903 for the remission of arrears, and £248,900 of this sum was allotted during the year. There remained at the end of the period an amount of £129,900 under suspension. The "fluctuating" system of land revenue, applied for the most part either to canal-irrigated lands or to lands subject to floods, is reported to be increasing in popularity, and it is being gradually extended. The revenue under this heading amounted to £291,600 in 1901–02; and there was a further amount of £51,200 classed as miscellaneous land revenue. The number of writs of demand issued against defaulters fell to 21,504, and there was a decline in other coercive processes; movables were sold in 3,282 cases; imprisonments numbered 13, against 58 in the previous year. The advances during the year under the Agricultural Loans Act amounted to £28,700, and £40,750 was advanced under the Land Improvements Act.

North-West Frontier Province.

The report for this province covers the same period as that for the Punjab. The season, as in the parent province, was unfavourable, and the yield of the crops is estimated at two-thirds only of the normal. The fixed land revenue demand was £106,400, of which £101,800 was collected, a result which was distinctly satisfactory, regard being had to the character of the harvests. Fluctuating and miscellaneous land revenue between them contributed £7,300. Coercive processes included 3,440 writs of demand, 1,018 arrests, and 117 sales of movables. The agricultural advances outstanding at the end of the year amounted to £9,500. The changes incident to the formation of the province in November, including organisation of new offices and territorial changes in these districts, with the consequent alterations, were carried out smoothly without any disturbing effect on the revenue administration.

Burma.

In Burma the monsoon of 1902 was irregular, and the consequence was a light out-turn of crops in Lower Burma, a total or partial failure of many of the unirrigated crops in Upper Burma, dependent on the latter rains, and a shrinkage of the irrigated area owing to short supplies of water. The gross demand of current year's revenue for the whole province under the various heads of revenue under review is shown in the marginal table; but a comparison of the two sets of figures is to some extent vitiated by difference in the periods concerned. Remissions of land revenue were higher, in consequence of crop failures, and amounted to £18,400. In Lower Burma the introduction of new rates after revision settlements in some tracts, together with the normal extension of cultivation, led to a higher demand, but in Upper Burma, where the assessment is restricted to crops that have matured, the amount assessed was lower. The collections of current land revenue amounted to £1,301,100, which is slightly less than the figure for 1901–02. There was some diminution in the actual yield from the household tax, or *thathameda*, owing to the reduction of the rates in some districts owing to crop failures. The number of persons assessed to capitation tax rose to 1,156,800, and the yield showed a substantial increase. The river and other

| — | 1901–02 (15 months.) | 1902–03. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,313,021 | 1,322,192 |
| Household tax - | 345,237 | 351,161 |
| Fisheries - - | 170,202 | 189,256 |
| Capitation tax - | 311,931 | 320,583 |
| Other sources - | 127,027 | 116,231 |
| TOTAL - - | 2,267,418 | 2,299,423 |

fisheries are a considerable source of revenue in both the upper and the lower parts of the province; measures have been taken for the resuscitation of the sea fishing industry by the grant of advances. The heading "other sources" includes receipts from petroleum royalties, from ruby mines, and from water rate. The amount of agricultural advances was £23,100, compared with £14,500 in the preceding year. LAND REVENUE.

The latest land revenue report from the Central Provinces is for the year ending in September 1902. The monsoon of 1901 was unsatisfactory, and the Christmas rains practically failed; the out-turns of the crops were therefore, with some exceptions, below normal. The demand on account of the land revenue of the year under the general system of the province stood at £561,800, reduced by suspensions and remissions to £526,500, to which may be added £35,400 for arrears outstanding. Collections on account of the year's revenue were extraordinarily good, bearing a proportion of 97½ per cent. to the amount demanded. Arrears of land revenue to the total of £229,300 were remitted during the year under the provisions of the Government of India's Budget, to which reference has already been made. There was a further demand on account of land revenue not on the roll, cesses, and miscellaneous revenue amounting in all to £73,500, deducting suspensions; and the receipts under these heads came to £65,500. Coercive processes on the whole showed an increase; 384 defaulters were arrested and 112 imprisoned; 1,826 attachments and 283 sales of movable property were effected; but the number of estates sold numbered only 15. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £24,200 during the year. The total amount of these loans outstanding at the end of September 1901 was £254,000, and £72,600 was collected and £29,400 remitted during 1901–02, the balance outstanding in September 1902 being £172,600. Central Provinces.

The rainfall in Assam during 1902–03 was above the average, but it was badly distributed, and crops suffered in some places from excessive rains, in others from their defect. On the whole, however, the crops were not far below the average, except in Nowgong district. The current land revenue demand rose from £379,900 to £389,700, the increase being due chiefly to the recovery of several of the Assam Valley districts from the effects of the earthquake of 1897, a recovery which has doubtless been stimulated by the reduction of revenue rates specially conceded. Including arrears, the amount collected was £395,100, the percentage of current collections on the current demand being 93 per cent. In addition to this, there were miscellaneous receipts to the amount of £28,300. The number of sales of land for non-payment of revenue was 707, against 1,173 in the previous year. On the other hand, sales of movable property increased from 681 to 2,745. The amount of agricultural loans granted in Assam is insignificant. Assam.

For the Madras Presidency the latest report available deals with the year ending on the 30th June 1902. The season was generally favourable to agriculture, and the out-turn of all crops, wet or dry, was generally fair, prices showing a material fall. The total demand on account of the year for land revenue, including charges for irrigation and cesses, was £4,464,700, and the total collections were £4,359,400. The uncollected balances at the end of June 1902 amounted to £105,300. The uncollected balance, including arrears of previous years, amounted to £124,000, of which nearly three-fourths had been either collected or written off before the end of the calendar year 1902. Of the above demand, a sum of £404,900 represents land revenue and cesses due from permanently settled estates, and £68,900 revenue from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. The number of ryotwari (peasant proprietors') villages was 22,880, and the area of their holdings was little short of 23 millions of acres. The favourable character of the season resulted in a considerable increase in the area under occupation as compared with the preceding year, and also in a lowered proportion of fallows. The land revenue demand on this area was £3,042,000, putting aside cesses. If certain remissions and miscellaneous items be taken into consideration, the figures stand at £3,545,000, against £3,443,000 in the preceding year, and 98 per cent of this current demand Madras.

LAND REVENUE.

was realised, in addition to a large recovery of arrears. The number of notices for attachment of property issued was large, and the same is true of notices of sale, which numbered 295,600. Sale was carried out in 18,880 cases. The area of land so sold was 45,700 acres, against 61,600 acres in the previous year; a considerable proportion of it is of inferior quality, less than 16 per cent. of it being irrigated land. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £28,800.

Bombay.

The latest report available from Bombay is for the year ending in August 1902. The rainfall was deficient in some parts, especially in the northern division, but in parts of each division fair crops were obtained. But the season did not allow of any marked recovery from the depression caused by former bad seasons. In the Presidency proper the gross demand of land revenue for the year was £2,033,300, or slightly less than the demand in the preceding year. The remissions granted during the year amounted to £198,300, and £1,407,700 was collected on account of the year's demand, leaving an outstanding balance on the 1st August 1902 of £427,300. The arrears at the beginning of the year had been £755,000, against which are to be set £542,400 written off as irrecoverable and £96,400 collected. The total arrears at the end of the year stood, therefore, at £543,500. The number of notices of demand issued was less than in the previous year, but is still regarded as excessive. Not much resort was had to the severer processes. The area forfeited was 41,433 acres, of which 7,558 acres were returned to the defaulters, 175 acres were sold, and the rest remained in the hands of the Government. The amount of agricultural loans sanctioned during the year was £266,700, compared with £522,400 in the preceding year.

In Sind the season was less favourable than in the previous year, but the inundation was not so bad as in some recent years. The collections of land revenue and village cess on account of the year amounted to £521,000, as compared with £595,600 in 1900–01, the demand having fallen to a corresponding extent by the exemption from assessment of lands lying fallow; £17,600 was collected on account of the outstanding arrears of the previous year. Agricultural advances amounted to £40,300, compared with £29,700 in the previous year. The number of coercive processes for the collection of the revenue showed a decrease, in spite of the circumstances of the season; this is ascribed to a change which has been made in the dates for paying instalments.

Berar.

The rainfall of 1902–03 was below the average in Berar, and it was not well distributed. The out-turn of crops did not rise above three-fourths of the normal, and jowar, or large millet, which covers 43 per cent. of the crop area and forms the staple food of the people, gave a low yield compared with the good crop of the preceding year. Prices, however, were lower. The land revenue demand for the year 1902–03, including cesses, amounted to £512,800, of which practically the whole was collected during the year. The arrears outstanding were inconsiderable. No defaulter was imprisoned for non-payment of revenue; the area of land sold on this account was 16,200 acres; personal property was sold in 19 cases. The amounts advanced under the Land Improvements Act and the Agriculturists Loans Act were only petty.

## WARDS' ESTATES.

WARDS' ESTATES.

Courts of Wards have been established in most of the larger provinces, as will be seen below. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been made, to a large extent, with this object. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage them, or of persons declared by the local Government, at their own request, to be disqualified for managing them. Since that year, various provincial Acts have been passed, giving to the Government further powers of putting estates under the control of the Court, without consent of the owners, when the latter are in a special degree unqualified for their proper management. The duty of the Courts is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the pro-

prietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. WARDS' ESTATES.

Bengal.

In Bengal 65 wards' estates and 74 other estates were under the management of the Court of Wards for the whole or part of the year 1902–03, with a total rent and cess income of £672,000. The collections of rents and cesses were very satisfactory, amounting to nearly 105 per cent. of the current demand. With other items, the receipts of the estates amounted to £1,020,300. The disbursements were £848,200, of which £216,300 was for Government revenue and cesses, £30,700 for dues of superior landlords, £62,400, or 9·7 of the rental, for cost of management, £111,500 for wards' and family expenses, £26,200 for improvements, and £145,000 for investments and payment of debts. The total of the debts stood at £781,200, of which £446,200 represents the debts of the Bettiah estate, which is involved to the extent of more than three and a half times the amount of the rent roll. The Burdwan Raj was released from management during the year, after being for seventeen years under the control of the Court. The final report on this large estate had not been received in time to be incorporated in the report for the year.

United Provinces.

The number of estates under the Court of Wards in the United Provinces at the close of the year ending in September 1902 was 185. Eleven fresh estates were taken under management and 13 estates were restored to their proprietors during the year. None of the latter estates had any special importance. Some of the estates which came under management were of considerable size, the largest and most deeply indebted being one in the Partabgarh district, which has a rental of more than £11,000, with debts to the amount of about £80,000. The seasons were not altogether satisfactory, and current rental collections amounted to 94·5 per cent. only of the demand. The aggregate receipts of all the estates under management for the whole or part of the year was £524,600, and the charges amounted to £511,800, of which £54,600 was for the education and maintenance of the wards, £9,700 for improvements, and £160,900 for repayment of debts. The Government demand, with cesses and rates, actually paid, amounted to 50·5 per cent. of the rental collections. The cost of management was 9·2 per cent. The total liabilities of all the estates amounted at the end of the year to £1,119,200, but the heavy debt of £353,000 owing by the small Rampur state of Moradabad under a decree for dowry is to be settled by compromise. There are 80 co-operative village banks on the estates under the Court, and they are reported to have worked satisfactorily, though still only in an experimental stage.

Punjab.

At the end of September 1902 the number of estates under the management of the Punjab Court of Wards was 43. Two estates were brought under management, of which one had only been released with a good balance after a minority in 1898, and had in the interval become involved in debt. Four of the estates have an income of over £3,300 a year, and seven of them have an area of 10,000 acres or more, but there are still several petty estates under management. One important estate, namely, Goler, is in a hopeless position, and little progress was made in respect of the Sher Shah estate, the prospects of which are more hopeful; but the figures of income for the estates as a whole are considered to have been gratifying, having regard to the agricultural conditions of the year. The gross income was £74,300, besides £41,800 obtained by loans and sale of properties; and the expenditure, excluding investments and repayments of debt, amounted to £47,900. The cost of management was rather more than 6 per cent. of the gross income, £9,800 was spent on family and educational charges, and £10,500 on improvements. Four estates were released, the results of their management being said to be satisfactory. A Bill to consolidate and amend the law relating to the Punjab Court of Wards was under consideration, and has been passed into law since the close of the year under review.

Central Provinces.

The year was one of some importance in respect of the Court of Wards in the Central Provinces, as considerable progress was made in winding up the affairs of hopelessly indebted estates, with a view to relieving the Court of Wards of their management. The creditors in most cases took a reasonable

WARDS' ESTATE.

attitude, and the result was the relinquishment of 25 estates from the management of the Court after arrangements had been concluded between the wards and their creditors. With the seven estates taken under management, the number of estates under the Court, in September 1902, was 122, against 140 in September 1901; a further reduction is to be expected. The gross income of all the estates was £89,900, of which £58,500 represented rental collections. The latter figure slightly exceeds the current rental demand, but it includes collections on account of arrears. The latter amounted to £55,800 at the end of the year, of which nearly half has been written off as irrecoverable. The debts were reduced by a net amount of £7,900, and stood at £115,900. The establishment by which the estates are managed is being revised on an efficient but economical basis; the cost of management was 15 per cent. of the year's income. The land revenue, £34,000, was paid practically in full; £6,700 was spent on wards' personal expenses, and £7,300 on estate improvements.

Madras.

Four estates in Madras were released during the agricultural year ended on 30th June 1903, and two taken under management, so that 37 remained under the control of the Court. The most important of the estates released was the Saptur estate in Madura, the current income of which had increased by nearly 60 per cent. during its sixteen years of management, and stood at £5,300, while £7,700 had been expended on irrigation works and £4,200 on on other improvements. The season was, on the whole, favourable on most of the estates; 667,100 acres, or 80 per cent. of the total area of all holdings on these estates, was cultivated. The rent collections during 1902–03 on account of the current year amounted to £174,700, or nearly 75 per cent. on the current demand; the demand on account of arrears amounted to £174,900, of which £70,600 was collected during the year, and £25,700 written off as irrecoverable. The cost of management was reduced to 12 per cent. of the ordinary receipts. The balance at the credit of all estates, invested and uninvested, at the end of the year was £435,200; the debts due were £837,300, of which no less than £745,000 was owed by two estates, Karvetnagar and Kalahasti, taken temporarily under management in 1899, under the additional powers given by the Act of that year. The Government demands amounted to £95,600, and education and maintenance of wards and families accounted for £24,700, the total charges, including repayment of debts and investment in Government securities, being given as £302,200.

Bombay.

In Bombay the estates under Government management during the year ending in September 1901 were of several kinds, namely, estates under the management of collectors, estates in charge of the Talukdari Settlement officer, and encumbered estates in Sind. Outside Gujarat the estates were of small area. The estates of the second category are all in Gujarat; they include 585 estates, of which 55 were encumbered estates under Act VI. of 1862, 46 were minors' estates, 307 were managed under the provisions of the Civil Procedure Code, and 177 were miscellaneous estates, of which many had been handed over to the Talukdari Settlement officer's charge in order to enable the talukdars to obtain loans for themselves and their tenants. None of the encumbered estates were able to make any reduction of their debts due to the Government. But the season being more favourable, an aggregate amount of £51,300 was collected out of the gross revenue of £83,300 due from all the estates under the Settlement Officer. The manager of encumbered estates in Sind had 525 estates in charge. The year's revenue of these estates amounted to £50,600, and the charges to £51,000. The estates under district officers numbered 127 in all.

# CHAPTER VIII.

## OPIUM REVENUE, AND TAXATION.



### OPIUM.

**General.**

The opium revenue is partly raised by a monopoly of the production of the drug in Bengal and the United Provinces, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the United Provinces, with the unimportant exception of a restricted cultivation for local use in the Punjab and Ajmere Merwara, and on the frontier of Upper Burma; and the area on which cultivation is permissible is calculated each year with a view of obtaining a stated amount of opium, with the proviso that, under present orders, the area under poppy in 1899–1900, namely 627,300 acres, is not to be materially exceeded. The cultivator of opium in the monopoly districts receives a licence, and is granted advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the foreign market. This price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer with effect from the spring of 1895. The chests of manufactured opium, after provision has been made for home consumption, are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium (known as Malwa opium) is also grown in Baroda and in some of the Native States of Rajputana and Central India. Most of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest (of 140 lbs.) for several years until December 1894, when it was raised to £43⅓. It was again reduced to £40 in July 1896, and to £33⅓ in October 1897.

The yield of the opium revenue during recent years has been :—

| | 1896–97. | 1897–98. | 1898–99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|---|---|---|
| Opium Receipts :* | £ | £ | £ | £ | £ | £ | £ |
| Auction sales of monopoly opium. | 3,233,568 | 2,660,697 | 2,775,878 | 3,394,290 | 4,109,249 | 4,150,290 | 3,662,600 |
| Duty on Bombay (or Malwa) opium. | 892,189 | 647,092 | 888,909 | 852,792 | 835,117 | 542,683 | 661,033 |
| Cost of opium issued to the Excise and other Departments, and miscellaneous. | 147,068 | 145,392 | 152,099 | 154,900 | 157,877 | 159,049 | 174,805 |
| Total - - - | 4,272,825 | 3,453,181 | 3,816,886 | 4,401,982 | 5,102,242 | 4,852,022 | 4,498,438 |
| Opium expenditure, chiefly in Bengal. | 1,657,795 | 1,592,744 | 1,582,193 | 1,727,154 | 1,785,875 | 1,608,690 | 1,648,483 |
| Net Opium Revenue - £ | 2,615,030 | 1,860,437 | 2,234,693 | 2,674,828 | 3,316,367 | 3,243,332 | 2,849,955 |

* These receipts are outside the provincial opium receipts of £735,207 shown below under "Excise."

OPIUM.

The number of chests of Bengal opium sold, and the average price obtained per chest in recent financial years, are as follows :—

| — | Number. | Average Price. | — | Number. | Average Price. |
|---|---|---|---|---|---|
| | | Rs. | | | Rs. |
| 1895–96 | 37,695 | 1,390 | 1900–01 | 45,300 | 1,361 |
| 1897–98 | 39,300 | 1,023 | 1901–02 | 48,000 | 1,297 |
| 1899–1900 | 31,700 | 1,221 | 1902–03 | 48,000 | 1,144 |

The exports of Bombay opium to China averaged 25,512 chests in the ten years 1890–1901, and were 17,582 chests in 1901–02, and 13,698 chests in the eight months ending on the 31st March 1903. The amount of Malwa opium which entered the Bombay Presidency during the latter period was 15,097 chests, or 14 per cent. more than in the corresponding eight months of 1901–02, though it was much below the amount received in similar periods before. The main permanent causes of the decline in the exports of Malwa opium to China are said to be the increased production of the cheap Chinese drug, and the low rate of exchange of the dollar as compared with the rise in the sterling value of the rupee.

Bengal.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop was sown but failed, is shown in the margin. Both in the Behar and the Benares Agencies the season was unusually favourable for poppy cultivation, and the general average gross produce per acre was 6 · 7 seers, compared with an average of 5 · 2 seers in each of the last seven years. The opium is received and prepared at the Government factories at Patna and Ghazipur, where the out-turn for the year included 5,280 chests of opium for the Excise Department, about 400 lbs. of various opium alkaloids, 1,464 lbs. of medical opium, and 64,700 chests of provision opium for the Chinese market. During the calendar year 1903, 18,000 chests of provision opium was sold in equal proportions from Behar and Benares, and the average price realised per chest was Rs. 1,335. The average cost per chest amounted to Rs. 506. There was a considerable increase in the price realised in the latter part of 1903, as compared with recent prices ; the average price during the financial year 1902–03 was about Rs. 1,144½ per chest, compared with Rs. 1,361 and Rs. 1,297, respectively, in the two preceding financial years.

| | Acres. |
|---|---|
| 1896–97 | 581,181 |
| 1897–98 | 546,671 |
| 1899–1900 | 627,311 |
| 1901–02 | 591,837 |
| 1902–03 | 582,807 |

SALT.

## SALT.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from one-fifth of a rupee (in Burma) to 3¾ rupees (in Bengal) per maund of 82⅔ lbs. ; during nearly the whole of the year 1902–03 the rate was 2½ rupees over the whole of India, excepting Burma, where it was one rupee per maund, the Kohat salt mines, the produce of which paid duty at the rate of Rs. 2 per maund of 102½ lbs., and the mines in the Mandi State, where the rate of duty was 7½ annas per maund, the share received by the Government of India being 5 annas per maund. These rates were reduced in March 1903, except in the case of Burma, where the rate remained the same. The new duties are Rs. 2 per maund generally, Rs. 1½ per imperial maund on Kohat salt (involving only a small reduction from the previous rate), and 6 annas per maund on Mandi salt, the Government share being reduced to 4 annas. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and for part of Burma and Central India ; the salt lakes and pits of Rajputana, which supply the United Provinces of Agra and Oudh, and a part of Central India ; the salt mines of the Punjab, which supply that province and a varying area southward ; and importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption.

The Salt Revenues and Charges in the year 1902–03 were as follows :—

| PROVINCE. | Price of Government Salt, and Excise on Salt made locally. | Duty on Salt imported from England. | Duty on Salt imported by Sea from other Places. | Miscellaneous. | TOTAL. | Charges. | Net Salt Revenue. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| Northern India - - | 1,305,670 | — | — | 9,766 | 1,315,436 | 68,911 | 1,246,525 |
| Burma - - - | 16,112 | 97,481 | 8,418 | 2 | 122,013 | 755 | 121,258 |
| Bengal - - - | 9,003 | 774,579 | 990,924 | 11,798 | 1,786,304 | 20,466 | 1,765,838 |
| Madras - - - | 1,346,669 | 177 | 933 | 6,628 | 1,354,407 | 140,908 | 1,213,499 |
| Bombay - - - | 1,552,202 | 714 | 869 | 52,460 | 1,606,245 | 114,709 | 1,491,536 |
| TOTAL 1902-03 - | 4,229,656 | 872,951 | 1,001,144 | 80,654 | 6,184,405 | 345,749 | 5,838,656 |
| TOTAL 1901-02 - | 4,086,743 | 972,654 | 807,072 | 72,841 | 5,939,310 | 343,630 | 5,595,680 |

The charges above shown do not include a sum of about £233,400 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government.

The rate of salt consumption per head of the population differs widely in the several provinces. If the total of licit consumption is compared with the population, the following results appear : — The consumption in the saliferous tracts of Bengal, including Orissa, was 12·21 lbs. per head; in Behar, 8·39 lbs.; in the rest of Bengal, 11·18 lbs.; in Gujarat, 8·99 lbs.; in the rest of Bombay 10·9 lbs.; in Sind, 7·39 lbs.; in Madras, 16·05 lbs.; in the Central Provinces and Berar, 11·15 lbs.; in the United Provinces, 7·45 lbs.; in the Punjab and North-West Frontier Province, with Kashmir, 7·45 lbs.; in Central India, 8·12 lbs., and in Rajputana, 7·15 lbs. The rate of consumption in Burma is not accurately known; the average rate might perhaps be stated roughly at 16½ lbs. per head.

The consumption of salt and the duty realised during the last 30 years are shown in the table in the margin, which has been taken from a report by the Director-General of Statistics to the Government of India. It will be observed that the amount of the duty received shows a slight divergence from the figures given above.

| | Quantity. | Duty. |
|---|---|---|
| | Maunds. | £ |
| 1863–69 to 1872–73 (average) | 22,973,000 | 3 835,000 |
| 1873–74 to 1877–78 „ | 24,184,000 | 3,971,000 |
| 1878–79 to 1882–83 „ | 27,761,000 | 4,393,000 |
| 1883–84 to 1887–88 „ | 32,429,000 | 4,141,000 |
| 1888–89 to 1892–93 „ | 33,432,000 | 5,351,000 |
| 1893–94 to 1897–98 „ | 34,211,000 | 5,505,000 |
| 1898–99 - - - | 35,269,000 | 5,719,000 |
| 1899–1900 - - - | 35,058,000 | 5,695,000 |
| 1900–01 - - - | 35,815,000 | 5,837,000 |
| 1901–02 - - - | 35,580,000 | 5,780,000 |
| 1902–03 - - - | 36,877,000 | 5,916,000 |

Northern India.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab and North-West Frontier Province, part of the United Provinces, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake the total quantity of salt made during the season was 4,744,200 maunds. This, though smaller than the outturn of the preceding year, was much above the figures for some recent years, during which the rainfall has been exceptionally low. Since the year 1870, when the lake was leased by the Government of India, 116 millions of maunds of salt have been taken from it, and the financial results show a total credit balance of £196,400, without taking into account the large stock of salt in hand. Practically all the Sambhar salt is sold at a uniform price of

SALT. 4 annas per maund; the sales in 1902–03 amounted to 3,499,400 maunds. In the Mayo mine 1,612,400 maunds of salt were excavated. This salt was sold at 9 pies per maund apart from the duty, and a charge of 6 pies a maund for delivery to the railway; the price of Didwana salt was also 9 pies; Pachbadra salt was sold at the rate of 1½ anna with a charge of 3 pies for clearance; Kohat salt fetched on the average about 8 pies. The total amount of salt which passed into consumption was 7,819,675 maunds, distributed as follows:—

| — | 1901–02. | 1902–03. |
|---|---|---|
| | Maunds. | Maunds. |
| Punjab and N.W. Frontier Province, cis-Indus, including Native States and Kashmir (chiefly rock salt). | 2,580,056 | 2,591,498 |
| Ditto trans Indus (chiefly Kohat salt) | 336,904 | 324,218 |
| United Provinces (chiefly Sambhar salt) | 3,405,693 | 3,269,782 |
| Behar | 154,419 | 153,126 |
| Central Provinces | 116,110 | 84,567 |
| Rajputana | 800,905 | 811,104 |
| Central India | 467,626 | 494,292 |
| Other places, including Afghanistan | 113,657 | 91,088 |
| TOTAL | 7,975,370 | 7,819,675 |

Bengal. The salt consumed in Bengal comes from abroad or from other parts of India; up to the last few years a small amount was annually manufactured in Orissa, but this manufacture has been discontinued, and the accumulated stock of locally made salt has now been exhausted. In the other maritime tracts of the province also, the manufacture of salt is prohibited. The amount of salt imported by sea during the year 1902–03 was 10,615,265 maunds, as shown in the margin; there was a decrease of 21 per cent. as compared with 1901–02. Nearly half of the total imports came from the United Kingdom, but English salt is being slowly but steadily replaced by salt imported from Aden and the Red Sea. The amount of Madras salt carried into Orissa by rail rose from 711,900 maunds to 828,800 maunds, or more than 16 per cent., while the imports of the same article by sea ceased, owing to the competition of the East Coast Railway. This salt is of high quality, and competes successfully with Liverpool salt. The average price of salt, including duty (Rs. 2½ per maund), at the chief marts of Bengal was Rs. 2⅔, having decreased by 2 annas, or about 3 per cent., as compared with the previous year. The average wholesale price of Liverpool salt in 1902–03 was Rs. 56¼ per maund from the ship's side at Calcutta, exclusive of duty, compared with Rs. 69¾ in 1901–02.

| Salt Imports by Sea. | 1901–02. | 1902–03. |
|---|---|---|
| | Maunds. | Maunds. |
| From United Kingdom | 6,554,361 | 5,232,650 |
| „ Germany | 1,354,514 | 900,195 |
| „ Red Sea | 4,359,447 | 3,604,292 |
| „ Persian Gulf | 347,964 | 279,963 |
| „ Madras | 11,992 | — |
| „ Bombay | 752,572 | 598,165 |
| „ Madagascar | 8,036 | — |
| Total | 13,388,886 | 10,615,265 |

The net amount of salt consumed in the province was 11,045,690 maunds, as compared with 10,431,400 maunds in 1901–02. The consumption of salt per head of the population during the last two years is given in the marginal table. The gross salt revenue was £1,787,000, or three per cent. more than in the preceding year, a result which was due to larger payments of import duty. The number of cases in which contraband salt was confiscated was 887, and there were 813 prosecutions instituted during the year for offences under the salt laws; 1,017 persons were apprehended, of whom 48 were acquitted.

| — | 1901–02. | 1902–03. |
|---|---|---|
| | Lbs. | Lbs. |
| Saliferous tracts (including Orissa). | 12·34 | 12·21 |
| Rest of province | 10·67 | 11·18 |

SALT. Madras.

There were in Madras available for the manufacture of salt by solar evaporation 22 Government and 45 other factories; but of these, four Government and two other factories were not at work during the year 1902–03. The season was, on the whole, very favourable for salt manufacture, and the quantity produced was the highest on record. The amount is given as 9,757,565 maunds, or over 5 per cent. more than in 1901–02, and nearly 20 per cent. above the average of the preceding ten years; of this amount, 5,889,800 maunds were manufactured in private factories. An attempt has been made to produce by sifting a large-grained salt which should compete with Bombay salt, of which a large quantity is imported annually; but the difficulty of disposing of the siftings except at a loss has resulted in its abandonment. The average wholesale price of "excise" (*i.e.*, private factories) salt works out to 3 annas per maund, or rather less than in the preceding year. Government salt is sold at fixed prices (the average rate being 3 annas per maund) with a view to controlling the price of "excise" salt; it is reported that the average retail price of salt varied in the several districts between Rs. $2\frac{3}{4}$ and Rs. $3\frac{3}{4}$. Excluding the salt used for fish-curing, or bought by the French Government, the total of salt available for consumption during the last three years was as follows :—

| —— | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|
| | Maunds. | Maunds. | Maunds. |
| Government, excise, and sea-imported salt - | 9,060,452 | 8,984,823 | 9,122,219 |
| Salt imported from Bombay by railway - - | 623,325 | 615,050 | 658,503 |
| | 9,683,777 | 9,599,873 | 9,780,722 |

After deduction of salt exported from the Presidency, which amounted to 968,000 maunds, the average consumption per head of the population was 16·05 lbs. in the whole Presidency, including Native States except Travancore and Cochin. The corresponding figure for 1901–02 was 16·23 lbs.

The gross revenue from Madras salt was £1,354,400, as compared with £1,276,900 in the preceding year. During the year under report there were 136 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 50,374 tons, which was considerably less than in the previous year, owing to bad weather on the coasts and other causes. About 800,000 maunds of cured fish left the yards in a fit condition for use. The cost of the yards to the Treasury was more than covered by the amount realised for salt. Prosecutions under the salt laws were numerous in comparison with other provinces, though their number was less than usual; of 5,245 persons charged with salt offences, 672 were released by departmental officers with a warning, and 4,514 were sent for trial.

Bombay.

The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government, on the Runn of Cutch (Baragra salt); from sea-salt works on the coast; and by importation. Of the sea-salt works one, at Dharasna, belongs to the Government; the remainder, of which there are some hundreds, are for the most part owned privately; the imports of salt come chiefly from Goa. The year was on the whole favourable for the production of salt, and the stock at the Pritchard salt works has reached the amount desired by the Government, namely, a reserve equal to two years' supply. The following table shows the issues of salt from each source for the last two years :—

SALT.

| | *1901-02. | | 1902-03. | |
|---|---|---|---|---|
| | Total Issues. | For Local Consumption. | Total Issues. | For Local Consumption. |
| | Maunds. | Maunds. | Maunds. | Maunds. |
| Baragra salt - - - | 2,020,720 | 393,591 | 2,091,508 | 392,195 |
| Sea salt - - - | 7,568,067 | 2,130,436 | 7,121,109 | 2,033,385 |
| Imported salt - - - | 253,987 | 206,984 | 272,815 | 221,891 |
| Total - - | 9,842,774 | 2,731,011 | 9,485,432 | 2,647,471 |

The issues of duty-paid salt in the whole Presidency were at the rate of 10·38 lbs. per head of the population, but in Gujarat, as usual, the average was lower, amounting only to 8·99 lbs. per head. The corresponding figures of the previous year were 10·71 lbs. and 8·91 lbs. per head of the population. The apparent fall may be due to reluctance to take salt out of bond while the question of a reduction of duty was pending, rather than to actual decrease in consumption. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt was $1\frac{1}{4}$ annas per maund, and the generally prevailing price of sea salt, exclusive of duty, was 2 annas. The average market price per maund ranged between Rs. 3, the price in the Ahmedabad district, and Rs. $4\frac{1}{10}$ in Bombay. The number of detected offences against the salt law was 1,428, most of them being clandestine removals of natural salt; 1,522 persons were prosecuted, convictions being obtained against 96 per cent. of them. Twenty-seven fish-curing yards were open at the end of the year, as in the previous year. The quantity of fish brought to be cured in bond was 113,800 maunds, and 36,941 maunds of cheap salt were issued to fish-curers; the fish-curing season was unfavourable, and the figures are very far below the returns of the exceptionally good year preceding.

Sind.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 288,383 maunds.* The consumption per head of the population was 7·39 lbs., against 7·13 lbs. in the preceding year and 7 lbs. in 1900–01. The average market price of salt was rather less than Rs. $3\frac{1}{2}$, showing a slight rise. One fish-curing yard was worked during the year, and used 1,205 maunds of salt and 9,295 maunds of fish. All the salted fish manufactured was exported.

| | Maunds. |
|---|---|
| * From Maurypur - | 224,579 |
| „ Saran - | 16,923 |
| „ Dilyar - | 27,567 |
| Net imports - - | 19,314 |

Burma.

The amount of imported salt which paid duty in Burmese ports during the year 1902 was 1,537,176 maunds. This comes chiefly from England and Germany, and pays a duty of Re. 1 per maund; imports from Germany constituted almost 60 per cent. of the salt imported, Liverpool salt comprising barely 25 per cent., while 11 per cent came from Aden, and $4\frac{1}{2}$ per cent. from Madras. The positions of the United Kingdom and Germany in this respect have been entirely reversed since 1894–95. The excise duty on locally manufactured salt was levied generally by a composition rate on vessels used for boiling brine, the amount of which varied in different parts of the province; but a system of levying duty on actual output is being experimentally tried in the Hanthawaddy and Bassein districts, and seems on the whole to have met with success up to the present. The estimated incidence of duty per maund under the composition rate system is given as about half a rupee in most districts, but as the output is not accurately known the

figures are uncertain. The estimated output of locally manufactured salt in 1902 is 544,800 maunds, against 585,300 in 1901. The total amount of salt actually consumed, as distinct from the amount issued, cannot be accurately stated. The imports of salted fish fell from 342,200 to 333,300 maunds. Prices of foreign salt at Rangoon were lower, falling to 25¼ annas by the close of the year; but the majority of the markets near Rangoon showed an increase rather than a decrease in the average selling rate, owing to local conditions. The price in inland markets showed no very decided change; the average was not higher than Rs. 2½ per maund. The number of cases of illicit manufacture of salt detected was small. SALT.

## EXCISE.

EXCISE.

The excise revenue of India is raised by various methods, including:— (1) Monopolies for the manufacture or for the sale, or both, of liquors over defined areas; (2) Still-head duty and fees on spirits manufactured at central distilleries; (3) Licences for the working of outstills at specified places, with the privilege of selling the produce; (4) Licences for the sale of various kinds of liquor; (5) Tax on trees used for the manufacture of toddy, or on mhowra flowers used for distillation; (6) Licences for the sale of intoxicating drugs; (7) Duty on opium and hemp drugs consumed.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee are also free from all duties, with the exception of the small tea cess now levied for the purposes of the trade. The excise duty on woven cotton goods manufactured at power mills is dealt with under the heading of "Customs." Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the United Provinces and Burma, and over part of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength; but in some cases the duty is levied on the raw material from which the spirit is distilled. The still-head duty ranges from Rs. 2 to Rs. 5 (in Burma, Rs. 6) per gallon of London proof spirit; if the cost of licences be added, the total duties are in some places more than six rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system, and assumes different forms in different provinces; in Northern India the distilleries are places under Government supervision where licensed distillers are allowed to set up stills and to manufacture spirits generally after a more or less rude fashion. Elsewhere they are large concerns, under private or Government management, at which spirits are made on improved principles. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. In certain parts of India, including the north and west of Bengal, about half of the Central Provinces, the whole of Assam, and in limited tracts in Burma, revenue is levied on Indian spirits by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the out-still system as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way. General.

* A customs duty is also levied on all imported spirits, wines and beer, but credited to the head of Customs. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

EXCISE. The following table gives the excise revenue of 1902–03 for each province under the different heads, as shown in the Finance and Revenue Accounts :—

| — | India (General) and Berar.* | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| License and distillery fees, and duties for the sale of spirits, fermented liquors, and drugs, viz. :— | | | | | | | | | | | |
| Foreign liquors, &c. - | 13,429 | 80,216 | 46,893 | 18,351 | 1,562 | 80,876 | 1,339 | 1,507 | 25,795 | 20,596 | 290,554 |
| Country spirits - - | 91,298 | 497,293 | 352,488 | 98,347 | 6,046 | 82,351 | 96,442 | 46,451 | 405,729 | 539,870 | 2,216,315 |
| Toddy - - - | 3,264 | 71,807 | 10 239 | — | — | 36,011 | 1,617 | 38 | 532,353 | 74,966 | 730,795 |
| Opium and its preparations. | 7,870 | 48,439 | 17,421 | 27,485 | 2,186 | 16,261 | 13,608 | 22,600 | 20,114 | 1,988 | 177,972 |
| Other drugs - - | 3,290 | 113,845 | 90,627 | 21,407 | 2,540 | 1 | 5,649 | 13,577 | 10,256 | 20,497 | 281,689 |
| Duty on opium consumed in India. | 10,236 | 128,664 | 37,063 | 11,360 | 505 | 165,811 | 24,163 | 96,826 | 32,253 | 48,990 | 555,871 |
| Acreage on land cultivated with the poppy. | — | — | — | 1,364 | — | — | — | — | — | — | 1,364 |
| Duty on ganja - - - | 696 | 111 202 | — | — | — | — | 7,349 | 13,627 | 9,717 | 11,928 | 154,519 |
| Fines, confiscations, miscellaneous. | 3,956 | 1,062 | 186 | 36 | 6 | 3,019 | 107 | 46 | 4,445 | 4,700 | 17,563 |
| Total Revenue - - | 134,039 | 1,052,528 | 554,917 | 178,350 | 12,845 | 384,330 | 150,274 | 194,672 | 1,041,162 | 723,525 | 4,426,642 |
| *Deduct* —Charges - - | *2,540* | *51,702* | *5,309* | *4,314* | *483* | *31,784* | *3,418* | *1,053* | *64,940* | *23,650* | *189,193* |
| Net Revenue, 1902–03 | 131,499 | 1,000,826 | 549,608 | 174,036 | 12,362 | 352,546 | 146,856 | 193,619 | 976,222 | 699,875 | 4,237,449 |
| Net Revenue, 1901–02 | 63,365 | 955,958 | 488,947 | 174,355 | — | 346,324 | 126,980 | 188,099 | 887,546 | 678,952 | 3,910,526 |

* From 1st October 1902 only.

A net sum of £504,000 was yielded by import duties on liquors and drugs imported into India during the year 1902–03, and thus the total drink and drugs revenue of India amounts to about 4½ annas a head on the whole population of British India. There has been, on the whole, a steady increase in the excise revenue with the exception of some of the years of famine; but this growth, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has largely increased the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The growth of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years is shown below :—

| | £ |
|---|---|
| 1874–75 - - - | 1,755,000 |
| 1883–84 - - - | 2,840,000 |
| 1894–95 - - - | 3,965,000 |
| 1895–96 - - - | 4,118,000 |
| 1897–98 - - - | 3,940,000 |
| 1898–99 - - - | 4,107,000 |
| 1900–01 - - - | 4,239,000 |
| 1902–03 - - - | 4,741,000 |

For the 228⅔ millions of the population inhabiting the various excise tracts covered by the statistics, the total number of shops licensed for the

retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :— EXCISE.

| PROVINCE. | Number of Retail Shops licensed in 1902-03 for the Sale of | | | | | Total in 1902–03. | Total in 1901–02. (revised.) | Population of Excise Area. |
|---|---|---|---|---|---|---|---|---|
| | Country Spirits. | European Liquors Imported or made in India. | Toddy and Rice-Beer or other Indian Fermented Drinks. | Opium. | Narcotic or Intoxicating Drugs, other than Opium. | | | |
| Bengal - - - | 3,371 | 537 | 16,901 | 1,697 | 3,672 | 26,178 | 25,254 | 74,620,000 |
| United Provinces - - | 5,965 | 288 | 4,288 | 1,175 | 3,653 | 15,369 | 15,308 | 47,671,000 |
| Punjab - - - | 1,271 | 299 | 38 | 1,456 | 1,255 | 4,319 | 4,276 | 20,306,000 |
| North-West Frontier Province. | 54 | 45 | — | 86 | 86 | 271 | 247 | 2,042,000 |
| Burma - - - | 68 | 426 | 1,571 | 88 | -- | 2,153 | 2,140 | 9,187,000 |
| Central Provinces - - | 6,396 | 87 | 506 | 954 | 1,070 | 9,103 | 8,598 | 9,564,000 |
| Assam - - - | 216 | 65 | 19 | 767 | 294 | 1,361 | 1,374 | 5,759,000 |
| Madras - - - - | 10,072 | 675 | 18,781 | 1,182 | 549 | 31,259 | 31,210 | 38,196,000 |
| Bombay and Sind (eight months). | 2,750 | 249 | 1,702 | 1,108 | 1,033 | 6,842 | 6,838 | 18,534,000 |
| Berar - - - | 1,084 | 24 | 929 | 429 | 176 | 2,642 | 2,665 | 2,754,000 |
| Total - - | 31,247 | 2,695 | 44,825 | 8,942 | 11,788 | 99,497 | 97,910 | — |

The increase in the Central Provinces is due to the taking over by Government of the outstill in two zamindari states ; that in Bengal chiefly to the disposal of sanctioned licences which were unlet in the preceding year. There are thus 99,500 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,300 of the population. In the United Kingdom in 1902–03 there were nearly 173,000 licences for the retail sale of beer, wine and spirits, or one shop to about 240 of the population. In neither computation are occasional or part-year licences reckoned ; of these latter licences, 30,800 were issued in the United Kingdom during the year, while the temporary or part-year licences in India are under 2,000 a year, leaving out of account domestic consumption licences issued in Bombay and Bengal.

In Bengal the total excise revenues of 1902–03 and the two previous years, as given in the departmental returns, were as follows :— Bengal.

| Receipts from | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits - - - | 451,161 | 468,115 | 497,239 |
| Foreign liquors and rum - - - | 44,881 | 38,291 | 41,815 |
| Fermented local liquors, toddy, and rice-beer | 105,189 | 106,067 | 110,227 |
| Opium - - - - | 172,743 | 174,685 | 176,810 |
| Ganja, bhang, and their compounds - - | 201,344 | 213,224 | 225,352 |
| Miscellaneous - - - | 1,243 | 1,305 | 1,072 |
| Total Excise Revenue - | 976,561 | 1,001,687 | 1,052,515 |
| *Add* duties levied in the Presidency on imported liquors | 140,009 | 141,667 | 148,891 |
| Total Revenue from Drink and Drugs - - £ | 1,116,570 | 1,143,354 | 1,201,406 |

Excise. The excise revenue was nearly 5 per cent. higher than the figure for 1901–02, which was the highest on record; the advance is distributed over practically all the heads of revenue. The average incidence of the total excise revenue in Bengal was 3½ annas per head, of which more than three-fifths was derived from liquors. Of the country spirit revenue, that accruing under the distillery system in the year under report slightly exceeded that under the out-still system, the order of 1901–02 being thus reversed. The latter system is in force in the Rajshahi and Chittagong divisions, and in parts of western Bengal, containing altogether a population of 40 millions; the rest of the province, containing 34¾ millions, is under the central distillery system. The number of central distilleries was 29, in addition to 33 depôts; that of out-stills rose to 2,134. The still-head duty levied on central distillery liquor ranged from Rs. 2 to Rs. 5 per gallon of proof spirit. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated, from statements furnished by the vendors, at about 1,316,700 gallons at London proof; the amount of imported spirits consumed in the province cannot be stated; issues of country spirits from distilleries rose to 652,000 gallons, which is nearly 7 per cent. higher than in 1901–02; and 39,000 gallons of rum, mostly imported from Shahjehanpur, were consumed.

To the third item in the table given above, toddy contributed £71,800; the attempt to introduce a tree tax system of collecting this revenue has failed, and it is levied by the sale of licences, which numbered 13,312. A large proportion of the people consume rice beer, and there were 11,379 licences for home-brewing in addition to those included in the tabular statement above, while free home-brewing of small quantities is allowed.

Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1902–03 being, to the United Provinces, 524 maunds; to Assam, 850 maunds; to Nipal, 297 maunds. The year was marked by a great reduction of cultivation owing to the full stocks in hand; the area of land so employed was only 2,354 acres, and the produce was about 5,040 maunds. The number of shops for the retail sale of ganja was increased by 40, to 2,760. The consumption of opium was higher, but in Calcutta there was a fall, which is suspected to be due in part to the displacement of the drug by cocaine. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or after the Bengali manner, known as *madak*, and it is believed that the consumption of opium in those forms has received a check. Attention has of late been directed to the use of cocaine as an intoxicant, and the drug has been brought under the excise law, and its sale, except under licence for bonâ fide medicinal purposes, was prohibited in January 1902.

United Provinces. The latest excise report for the United Provinces relates to the year ending in September 1902. For the last three years the gross excise revenues have been :—

| Gross Receipts from | 1899–1900. | 1900 01. | 1901 02. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits and fermented liquors | 277,716 | 296,509 | 346,395 |
| Foreign liquors and rum | 36,383 | 38,840 | 43,479 |
| Opium | 45,450 | 50,047 | 53,362 |
| Other drugs | 78,824 | 84,657 | 87,733 |
| Miscellaneous | 213 | 231 | 286 |
| Total £ | 438,586 | 470,284 | 531,255 |

This total is higher by 13 per cent. than that of the previous year, which was the highest on record. This increase has been attained chiefly by the enhancement of the quantitative duties levied, as well as by improved administration, while the consumption, though showing no signs of decline in this prosperous year, has not grown to the same extent as the revenue. The increase of receipts occurred chiefly under the head of country spirits, though all headings show higher figures. The revenue from this source is raised for the most part under the distillery system, though some tracts on the north and on the south of the provinces are under farming or out-still systems. Twenty-seven central distilleries were at work throughout the year. The rate of still-head duty charged was increased from Rs. 2 to Rs. 2½ per gallon of London proof spirits in divisions, a proportionate enhancement being fixed for spirits 25 degrees under proof; thase higher rates are now in force practically throughout the provinces. The number of out-stills and shops fell from 1,476 to 1,440. The consumption of spirits under the farming and out-still systems cannot be stated, but the amount of country spirits consumed in the distillery tracts, which constitute most of the province, is given as 1,282,800 gallons at London proof, or 5½ per cent. more than the consumption of the previous year. Excise.

The amount of the quantitative duty on Bengal ganja was, as before, Rs. 6 to Rs. 9 per seer. The duty on charas was Rs. 4 per seer, and that on ganja from places other than Bengal was raised from Rs. 3 to Rs. 4 per seer. The quantity of hemp drugs consumed included 326 maunds of ganja, 2,341 maunds of charas, and a large quantity of bhang, the two former figures showing an increase. The question of re-adjusting the duty on ganja and charas was being considered. The consumption of opium also (1,558 maunds) was higher than in 1901-02.

The policy which has been pursued in the Punjab of promoting the use of the purer spirit manufactured by European methods in preference to the cruder country-made spirit, for which purpose the duty on all spirits was fixed in 1898 at a common rate of Rs. 4 per gallon of proof, or nearly proof spirit, was carried further after the end of the year under report by the closure of the last of the Government enclosures in which country spirit was manufactured. The supply of spirits may be now said to be left to four large private distilleries worked on European methods; though the actual number in existence is six. Punjab.

The gross excise revenues in the last three years were raised as follows :—

| Receipts from | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | £ | £ | £ |
| Spirits made in India - - - | 98,215 | 95,114 | 101,865 |
| Imported liquors and beer - - - | 12,873 | 13,312 | 14,575 |
| Opium - - - - - | 40,611 | 39,357 | 40,236 |
| Other drugs and miscellaneous - - - | 21,707 | 19,190 | 21,673 |
| Total - - - £ | 173,406 | 166,973 | 178,349 |

The quantity of spirits issued for sale in the province was 229,000 gallons, practically all from the private distilleries. Five years previously, nearly three-quarters of the supply had been made in the country fashion. Imported liquor to the amount of 58,000 gallons must be added, in order to obtain the figure of consumption in the Punjab. The province stands fourth in respect of population, but in the excise revenue is almost lowest of the great provinces, owing to the abstemious character of much of the population. The spirit supply works out at an average of $\frac{1}{16}$ of a quart per head of the population in the year. There is practically no revenue from native fermented liquors, which are not consumed to any extent. The amount

Excise. of opium sold retail is returned as 1,307 maunds, but there is some reason to doubt the accuracy of the figure. The area under poppy declined, and the receipts from acreage duty were therefore less. The import duty on Malwa opium is Rs. 4 per seer, and on that imported from Kashmir and the Hill States Rs. 2 per seer. There is a considerable consumption of bhang (2,284 maunds 1902–03), and the retail sales of charas increased from 746 to 878 maunds, though possibly the returns are at fault. It has been determined to increase the rate of duty on this harmful drug from Rs. 2 to Rs. 6 per seer, with effect from the 1st April 1904.

Burma. In Burma the gross excise revenue during the past three years was raised thus :—

| Receipts from | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|
| | £ | £ | £ |
| Liquors imported or made in Burma by European methods at distilleries. | 83,523 | 83,442 | 75,320 |
| Country spirit (*i.e.* spirit made at out-stills) - - | 9,019 | 8,895 | 8,839 |
| Toddy - - - - - - | 28,772 | 31,431 | 37,240 |
| Rice-beer - - - - - - | 61,985 | 77,771 | 72,004 |
| Opium - - - - - - | 173,689 | 205,338 | 204,330 |
| Fines - - - - - - - | 2,568 | 3,199 | 2,871 |
| Total - - £ | 359,556 | 410,076 | 400,604 |
| *Add*,—Duty on Imported liquors - - - | 75,092 | 74,705 | 83,722 |
| Total - - £ | 434,648 | 484,781 | 484,326 |

The decrease under the first head is ascribed to the lower prices obtained for licences at the auction sales, combined with a decrease in the consumption of spirits manufactured by European methods at the four distilleries in Burma. In certain places where there is an ascertained demand for country-made spirit, out-stills are permitted, under constant supervision; there were 35 of these out-stills in Lower Burma and 12 in Upper Burma during 1902–03. The excise duty on distillery spirits is Rs. 6 per gallon, which is the same as the import duty on foreign spirits. The chief matter of interest is the working of the new measures introduced in Lower Burma for restricting the use of opium. They came into force on the 1st April 1902. They included (1) an increase in the number of licensed shops, (2) the sale of shops to selected candidates instead of the previous open auction system, (3) the re-opening of the list of registered Burman consumers, for the addition of actual consumers who were over 25 years of age in 1893, and (4) vigorous efforts to suppress smuggling. The result from a financial point of view is shown in the table. For the rest, it is believed, though a definite conclusion can hardly yet be drawn, that a check has been given to the contraband trade, but that the measures have not been altogether successful in restricting consumption and in keeping opium out of the hands of unregistered Burmans. The amount of smuggled opium confiscated in 1902–03 fell to 48 maunds, as compared with 93 maunds in the preceding year. The measures are being applied tentatively, and have more recently been extended to Upper Burma.

No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; nor are there available accurate statistics of the consumption of imported beer and spirits. The issues of spirits made in Burma by European methods fell from 70,555 to

55,724 gallons; the amount of opium issued from the Government treasuries was 1,251 maunds, which was over one-third more than in the preceding year, owing to the new arrangements in Lower Burma.

In the Central Provinces the excise receipts of recent years have been as follows:—

| Receipts from. | 1894–95. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|
| | £ | £ | £ | £ |
| Country spirits | 115,649 | 69,637 | 80,414 | 95,326 |
| Opium | 65,298 | 48,514 | 46,574 | 53,512 |
| Ganja | 18,055 | 11,246 | 11,839 | 12,862 |
| Toddy | 1,493 | 1,457 | 1,561 | 1,618 |
| Miscellaneous, including foreign liquors | 1,937 | 2,827 | 3,056 | 2,990 |
| Total £ | 202,432 | 133,681 | 143,444 | 166,308 |

These figures show that the Excise Department has shared in the reviving prosperity of the province, but they are still far below those of a normal year, which may be taken as represented by those for 1894–95. The increase would have been still more marked if it had not been the case that a bad crop of mahua was expected, and that the bidding at the auctions was thereby restricted. In the end the crop turned out very well, to the great benefit of the licence-holders.

The greater part of the country is supplied with spirits from out-stills, from which nearly 43 per cent. of the country spirit revenue is derived; the number of these out-stills was 1,769, having been increased by the taking over of excise arrangements in some zamindaris by the Government. The Government have in view the desirability of substituting the central distillery system in tracts where it is considered possible to do so. The number of central distilleries was 25 as in the previous year. In two districts, Nagpur and Nimar, a modified bonded warehouse system had been for some years on its trial. Under the out-still system the revenue is raised entirely by licence fees, under the central distillery system by licence fees and by a duty varying between one and four annas per seer on the raw material; under the new system it is raised by licence fees and a duty on liquor consumed, fixed at Rs. 3 per gallon of spirit 10 degrees below London proof and Rs. $1\frac{1}{4}$ per gallon 50 degrees under proof. It was decided to appoint a Committee to consider whether the time had come for the extension of this system, which has the advantage of separating the rights of manufacture and of vend.

The duty on the importation of Shahjehanpur rum was Rs. 5 per gallon, and the amount imported was about 9,500 gallons. The issues of spirits from the distilleries were equivalent to 233,776 gallons at London proof strength, an increase of 22 per cent. compared with the preceding year. The consumption in out-still areas cannot be stated. There was a large increase in the amount of opium issued from the Government treasuries during the year—702 maunds against 590 maunds in 1901–02—but there is much smuggling in the north of the province, and this figure is far from representing the whole of the actual consumption of opium. The duty on ganja was raised from Rs. 3 to Rs. 4 per seer at the beginning of the year 1901–02, and the consumption has since fallen very considerably. It was rather higher—710 maunds—in 1902-03, but there is much smuggling. Its cultivation has recently been prohibited in the feudatory states of Orissa, and inquiry was ordered with respect to its cultivation in some feudatories of the Central Provinces. The number of licences for the cultivation of ganja in the Nimar district rose from 53 to 111, and the area cultivated was 148 acres, or 72 acres more than in 1901–02.

EXCISE. Assam.

The excise revenue of Assam for the year 1902–03 and previous years was distributed thus : —

| Receipts from | 1900–01. | 1901 02. | 1902 03. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 46,506 | 46,854 | 46,382 |
| Imported liquors and rum | 1,767 | 1,517 | 1,506 |
| Opium and its compounds | 120,292 | 114,067 | 119,435 |
| Ganja and its compounds | 26,762 | 26,318 | 27,197 |
| Miscellaneous, including toddy, &c. | 178 | 113 | 142 |
| Total | 195,505 | 188,869 | 194,662 |

The excise revenue rose in the year under report to within a small amount of the figures for 1900–01, which were the highest recorded. The returns from country spirits were rather lower, but the revenue from opium, which is by far the most important part of the excise revenue of the province, was high. The country spirits are for the most part consumed by the immigrant population, which has grown rapidly during the past few years; no estimate of the consumption of spirits for the year is available, as, owing to the sparse population of the province, the central distillery system has not been introduced, and the out-still system everywhere prevails. The question of the excise system in its relation to country spirits was made the subject of an exhaustive inquiry during the year, but the results were not submitted in 1902–3. Endeavours were made to get planters to undertake the management of country spirit shops in their vicinity, but without much success. One shop was closed, and five removed, on the complaints of the managers of neighbouring gardens. The indigenous population consumes chiefly opium and ganja, the use of the latter being especially prevalent in the two Surma Valley districts; and there is little demand for the other hemp drugs, known as *charas* and *bhang*. Taking the province as a whole, the consumption of opium per head of population is more than twice as large as in any other part of India, and seven or eight times that of Bengal or the United Provinces. The amount of opium issued from the Government treasuries was 1,274 maunds, which was 69 maunds more than in 1901–02, but less than in preceding years. The same may be said of the issues of ganja, which amounted to 614 maunds. Arrests under the excise and opium laws numbered 486, and convictions were obtained against 78 per cent. of the persons concerned.

Madras.

The gross excise revenue of Madras during the last three years was raised thus :—

| Receipts from | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 337,277 | 357,969 | 403,£82 |
| Toddy | 472,186 | 497,089 | 529,654 |
| Foreign liquors and miscellaneous | 27,027 | 32,523 | 30,620 |
| Opium and other drugs | 65,762 | 66,337 | 72,249 |
| Total | 902,252 | 953,918 | 1,035,805 |
| *Add*,—Customs duties on imported liquors | 63,365 | 62,256 | 69,696 |
| Total Revenue from Drink and Drugs £ | 965,617 | 1,016,174 | 1,105,501 |

Central distillery systems are in force over the greater part of Madras. The distilleries are all private concerns working on European methods; in some parts they compete freely with one another; elsewhere the right of manufacture is sold to contractors. In some small tracts non-distillery systems are in force, but these areas are being restricted. Still-head duty is levied on all spirits issued from contract or other distilleries; the rate varies, but generally speaking is Rs. 4⅜ per gallon at proof strength. The amount of country spirits consumed in 1902–3 in distillery areas is returned as 1,011,756 gallons at proof strength, compared with 869.700 gallons in the preceding year. The increase is ascribed to the favourable character of the season. Over nearly the whole of the Presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for fermented toddy, while the shops for retail sale of toddy are separately sold by auction to the highest bidder. The amount of toddy consumed in the Presidency cannot be stated, but the increase in the receipts from tree tax by nearly 5 per cent. points to a larger consumption. **Excise.**

The use of opium is almost restricted to the districts in the north-east of the Presidency, chiefly the Godavari district, where the rate of consumption (94 grains per head) is high. The quantity consumed in the Presidency, including that used in the manufacture of drugs, is given as 890 maunds. The amount of hemp drugs of all kinds sold by retail is returned as 1,098 maunds. The number of persons sent for trial for offences against the excise laws was 19,083, against 18,516 in the previous year, and among these nearly 95 per cent. of convictions were obtained.

The central distillery system obtains through practically the whole of the Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, who guarantees a fixed minimum return of duty to the Government; and nearly all the revenue is obtained from still-head duties; in the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licences. The Bombay still-head duty ranges between Re. 1 and Rs. 5⅓ per proof gallon, averaging about Rs. 3½. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The general fiscal results of the excise management in Bombay, Sind, and Aden during the last three years were— **Bombay.**

| Gross Receipts from | 1901–01. | 1901–02. | 1902–03.* |
|---|---|---|---|
| | £ | £ | £ |
| Locally-made liquors, including toddy | 569,540 | 596,357 | 417,634 |
| Foreign and Indo-European liquors | 16,066 | 18,023 | 12,096 |
| Opium | 47,607 | 49,160 | 34,257 |
| Intoxicating drugs | 31,768 | 31,600 | 20,591 |
| Miscellaneous items | 5,115 | 10,773 | 7,015 |
| Total Excise Revenue | 670,096 | 705,913 | 491,593 |
| *Add*,—Customs duties on imported liquors | 187,034 | 193,094 | 203,939† |
| Total Revenue from Drink and Drugs £ | 857,130 | 899,007 | 695,532 |

* Eight months only. † Twelve months.

The incidence of the revenue from country liquor for the eight months was rather over 6 annas per head of the population in Bombay proper, the

Excise. average for the corresponding period of last five years being rather less than that figure. The amount of country spirit consumed in the eight months is returned as 1,766,000 gallons, against an average of about 1,680,000 gallons as an average for the corresponding periods of the last five years. The figures as a whole are taken to be a satisfactory indication of returning prosperity. Issues of opium from Government treasuries for internal consumption are returned at about 805 maunds in the eight months, which is proportionately more than in the last two years, though less than in earlier years. The amount of hemp drugs sold during the eight months included 1,718 maunds of bhang, 431 maunds of ganja, and 243 maunds of other preparations. The consumption in Sind is chiefly in the form of bhang, in Bombay it is chiefly ganja. The use of the latter drug appears to have received a very considerable check by the imposition of the duty of Rs. 4 per seer, and the restrictive measures introduced by the Bombay Act V. of 1901. Offences against the revenue laws in the Presidency proper were rather less frequent, the number of cases detected being 1,631; convictions were obtained in 93 per cent. of the cases brought up for trial.

Berar. In Berar the gross excise revenue of the last three years has been as follows :—

| | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirit and toddy | 53,506 | 68,480 | 81,928 |
| Opium | 17,950 | 16,847 | 22,381 |
| Ganja | 1,877 | 2,708 | 2,836 |
| Foreign liquors and miscellaneous | 585 | 481 | 577 |
| Total | 73,918 | 88,516 | 108,722 |

The financial results of the year are very satisfactory. The revenue from country liquor is higher than it has been since the introduction of the central distillery system, though not so high as in some years when the outstill system was everywhere in force. The consumption of distillery liquor amounted to 182,600 gallons at London proof, which is much higher than in previous years. The distillery area comprised the Ellichpur, Amraoti, and Akola districts, and part of the Buldana district; in these tracts the Madras contract distillery system, which replaced the Bombay system in the year 1899, continued in force, the main feature being the separation of the right of retail vend from that of manufacture and wholesale supply. A uniform rate of stillhead duty on country liquor, namely Rs. 2½ on strength of 25 degrees below proof, and Rs. 1¼ on strength of 60 degrees below proof, came into force at the beginning of the year, in place of the former varying rates. The rest of Berar was supplied with country spirits by out-stills, which numbered 578. The amount of opium sold retail increased to 441 maunds, and 129 maunds of ganja and 22 maunds of bhang were consumed. With effect from the 1st April 1901, the rates of duty on opium and ganja were raised respectively from Rs. 10 to Rs. 15 per seer and from Rs. 3 to Rs. 4 per seer. Neither of these drugs is produced in Berar, the cultivation of poppy and of hemp for this purpose being forbidden.

## Stamps.

Stamps. The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts, and under Act II. of 1899 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of

exchange, receipts, and the like. The following table gives the stamp receipts, province by province, from the year 1902–03 :— EXCISE.

| | India, (General) and Berar.* | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Sale of court fee stamps | 34,559 | 944,590 | 412,596 | 180,451 | 15,905 | 105,534 | 67,891 | 48,636 | 349,676 | 232,790 | 2,392,628 |
| Sale of commercial and other stamps. | 17,720 | 353,894 | 121,949 | 77,067 | 9,895 | 67,943 | 29,151 | 18,693 | 192,943 | 124,072 | 1,013,327 |
| Fines and miscellaneous | 247 | 6,212 | 1,915 | 5,798 | 146 | 2,114 | 368 | 951 | 7,279 | 42,726 | 67,756 |
| Gross Stamp Revenue of 1902–03. | 52,526 | 1,304,696 | 536,460 | 263,316 | 25,946 | 175,591 | 97,410 | 68,280 | 549,898 | 399,588 | 3,473,711 |
| Revenue of 1901–02 | 24,300 | 1,267,037 | 558,730 | 271,323 | 9,606 | 150,851 | 103,855 | 63,204 | 579,275 | [illegible],225 | 3,446,406 |

* From 1st October 1902 only.

The refunds of the year were £39,309, and the charges of collection came to £100,308.

## CUSTOMS.

Import duties, which had been abolished in India in 1882, and were re-imposed in 1894, are levied, generally speaking, at the rate of 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material, industrial or agricultural machinery, food grains, raw materials such as coal, jute, raw cotton, or wool, besides books, and gold and unset precious stones, which are all admitted free of duty ; petroleum, which pays one anna per gallon ; and iron and steel, on which an import duty of 1 per cent. *ad valorem* is levied. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns, while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised ; all cotton yarns whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India, the products of the village handloom industry being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of unhusked rice. An Act empowering the Government of India to put a countervailing duty on any imported goods which have received a bounty, direct or indirect, from the country of export, was passed in 1899 ; and this was put in force with regard to sugar. Subsequently, in accordance with the views of the Brussels Convention, and in view of the protection enjoyed by sugar-growers in certain countries in their home markets, Act VIII. of 1902 was passed, by which an additional duty was imposed on sugar coming from countries where the duties on imported sugar exceeded those levied on sugar produced in the country by 6 francs per 100 kilogrammes in the case of refined sugar, or 5½ francs for other sugar, the amount of the additional duty being one-half of such excess. CUSTOMS.

The appended table shows the changes in the net customs revenue caused by the above-mentioned changes, giving the figures for 1894–95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December ; 1895–96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896 ; and the three most recent years, during the whole of which the tariff remained unchanged, with the exception of the sugar duties, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list :—

CUSTOMS.

| | 1894-95. | 1895-96. | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|---|---|
| Sea Customs, import duty : | £ | £ | £ | £ | £ |
| Arms, ammunition, and military stores. | 10,126 | 11,403 | 7,146 | 12,563 | 10,699 |
| Liquors | 406,355 | 440,669 | 462,547 | 469,256 | 504,006 |
| Petroleum | 213,118 | 270,782 | 324,069 | 348,222 | 356,438 |
| Cotton manufactures | 256,631 | 776,483 | 616,633 | 683,214 | 634,189 |
| Silver bullion and coin | 230,557 | 231,859 | 29,007 | 204,054 | 258,976 |
| Other metals | 135,078 | 168,641 | 193,904 | 154,010 | 201,716 |
| Other articles | 630,450 | 686,725 | 830,563 | 863,432 | 800,565 |
| Countervailing duties on sugar | — | — | 140,465 | 244,398 | 73,360 |
| Export duty on rice | 594,017 | 609,581 | 552,964 | 595,680 | 823,280 |
| Miscellaneous | 6,694 | 1,770 | 20,534 | 22,307 | 19,626 |
| TOTAL Sea Customs | 2,483,026 | 3,197,913 | 3,177,832 | 3,597,136 | 3,682,855 |
| Land Customs | 15,884 | 13,397 | 9,532 | 14,185 | 18,301 |
| Excise duty on cotton manufactures. | 6,897 | 40,632 | 77,530 | 114,456 | 121,698 |
| Miscellaneous (including warehouse and wharf rents). | 10,773 | 18,672 | 21,052 | 20,386 | 18,974 |
| TOTAL NET CUSTOMS REVENUE | 2,516,580 | 3,270,614 | 3,285,946 | 3,746,163 | 3,841,828 |

There was a decrease, as compared with 1901–02, in the receipts from imported cotton manufactures, and the countervailing sugar duties had the effect of restricting imports of sugar from countries to which the duties applied, and therefore yielded little. Against these declines, however, is to be set a large rise in the receipts from the rice export duty, besides minor increases under liquors, petroleum, and silver. It should be explained that the receipts from the ordinary 5 per cent. *ad valorem* duty on sugar are included under the heading "Other Articles." Regarding the working of the excise duties on cotton goods, the progress of the cotton mill industry is treated in a later chapter.

## PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates or cesses are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. They are assessed either on the "assets," or rental value, or else, as is the case in the ryotwari provinces, on the land revenue, and they are collected with the land revenue. In Bengal there are two cesses, for roads and public works respectively, which are limited by law to half an anna in the rupee of the rental in each case, or one anna in the rupee (6¼ per cent.) for the combined cesses. They are levied on immovable property outside the municipalities on a valuation made and kept up from year to year for this purpose. In the ryotwari provinces of Bombay and Madras the incidence of the local rates (for roads and schools) is precisely that in force in Bengal, with the difference that the percentage is on the revenue instead of on the rent, and is therefore probably a smaller proportion of the profits of the land. In Lower Burma the local rates amount to 10 per cent., and in Assam to 8·3 per cent., on the ryotwari revenue. These are the highest rates. In the Punjab, the United Provinces, and the Central Provinces, the local rates are assessed on double the land revenue, that revenue being, except in the case of the Central Provinces, rather less than half the rental assets. In the Punjab they are equivalent to 5·2 per cent. on the rental value. Elsewhere they do not exceed 4 per cent. In the United Provinces they are charged at 6 per cent., but two-fifths of the produce are devoted to the maintenance of the village watch, which in Bengal and other parts of India is a charge upon special contributions assessed and collected apart from the local rates.

The following is a table of the rates and cesses collected during the year :— PROVINCIAL RATES.

| — | India (General) and Berart.* | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| District Local Fund : | | | | | | | | | | | |
| Cess on Land for expenditure on roads, schools, hospitals, and general purposes. | 20,970 | 321,251 | 384,603 | 138,546 | 9,484 | 112,022 | 27,906 | 45,764 | 408,471 | 162,410 | 1,631,427 |
| Provincial : | | | | | | | | | | | |
| Cess on land for expenditure on roads, schools, &c. | — | 320,800 | — | — | — | — | 266 | — | — | — | 321,066 |
| Cess on land for famine assurance, canals, and railways. | −87 | — | 87,849 | 36,362 | 4,461 | — | 11,660 | — | — | — | 140,245 |
| Cess on land for district post. | — | 21,309 | — | 6,904 | 443 | — | 2,865 | — | — | — | 31,521 |
| Cess on land for village service and patwaris. | 24,480 | — | 168,879 | 87,560 | 8,144 | — | 34,968 | — | 192,038 | 27,120 | 543,189 |
| Assessment on wards' estates for establishment charges. | — | 10,800 | — | 1,444 | 125 | — | — | — | — | — | 12,369 |
| Miscellaneous - - - | 2,872 | — | 62,394 | — | 316 | — | — | — | 1,991 | — | 67,573 |
| Total Receipts - | 48,235 | 674,160 | 703,725 | 270,816 | 22,973 | 112,022 | 77,665 | 45,764 | 602,500 | 189,530 | 2,747,390 |
| Refunds and charges of collection. | 30 | 35,966 | 488 | 443 | 2 | 4,783 | 86 | 465 | 1,367 | 4,192 | 47,822 |
| Net Receipts, 1902-03 - | 48,205 | 638,194 | 703,237 | 270,373 | 22,971 | 107,239 | 77,579 | 45,299 | 601,133 | 185,338 | 2,699,568 |
| Net Receipts, 1901-02 - | 9,181 | 616,451 | 693,200 | 331,871 | | 104,040 | 104,030 | 43,967 | 580,451 | 211,803 | 2,694,994 |

* From 1st October only.

## INCOME TAX.

INCOME TAX. General.

There was no change in the income tax law (Act II. of 1886) during the year. The principal provisions of the Act are that incomes derived from salaries and pensions, or from interest on securities (classed as Parts I. and III. in the returns), if amounting to Rs. 2,000 per annum, should pay five pies in the rupee (equal to $6\frac{1}{4}d.$ in the £), and if less than Rs. 2,000, four pies in the rupee ($5d.$ in the £); that companies (Part II.) should pay five pies in the rupee on their net profits; and that income derived from other sources (Part IV.) should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pies in the rupee. All incomes of less than Rs. 500 (£$33\frac{1}{3}$) a year were exempted. It was announced in the budget for 1903–04 that limit of exemption was to be raised from Rs. 500 to Rs. 1,000 (£$66\frac{2}{3}$). The tax is not levied on profits or incomes derived from agriculture, or on military salaries of less than Rs. 500 a month (£400 a year).

The receipts on account of income tax in each province were as follows :—

| — | Gross Collections. | Refunds and Collection Charges. | Net Receipts. |
|---|---|---|---|
| | £ | £ | £ |
| India (General), and Berar since 1st October 1902 | 111,594 | 512 | 111,082 |
| Bengal - - - - - - | 395,876 | 14,936 | 380,940 |
| United Provinces - - - - - | 176,287 | 1,320 | 174,967 |
| Punjab - - - - - - | 107,335 | 1,943 | 105,392 |
| North-West Frontier Province - - - | 7,662 | 111 | 7,551 |
| Burma - - - - - - | 83,188 | 3,232 | 79,956 |
| Central Provinces - - - - - | 24,673 | 220 | 24,453 |
| Assam - - - - - - | 21,276 | 160 | 21,116 |
| Madras - - - - - - | 209,325 | 3,443 | 205,882 |
| Bombay - - - - - - | 273,212 | 6,029 | 267,183 |
| Total, 1902-03 - - - £ | 1,410,428 | 31,906 | 1,378,522 |
| Total, 1901-02 - - - £ | 1,369,310 | 30,907 | 1,338,403 |

INCOME TAX.

The figures in the following paragraphs are taken from the provincial reports, and differ to some extent from those given above, which were taken from the final accounts of the Government of India.

**Bengal.** In Bengal the collections in 1902–03 amounted to £375,100, compared with £363,500 in the previous year. The realisations under Part IV. amounted to £241,600, showing a slight increase. Calcutta contributed £182,700 against £177,200 in the previous year; £90,000 of this was under Part IV. The total number of objections in the province against 106,151 original assessments in this Part was 12,048, and the final demand was about 2 per cent. below the original assessments; 84,511 of the assessees under all headings had incomes below Rs. 1,000 per annum, and about 17 per cent. of the receipts was contributed by this class.

**United Provinces.** For the United Provinces the latest report available is that relating to the three years ending in 1901–02. The receipts for that year were £167,900, of which £31,200 accrued under Part I., and £124,900 under Part. IV. The final number of assessees in Part IV. was 65,574. It is stated that there has been some shifting of the burden of the tax from the lower to the higher classes of assessees; but the number of incomes assessed below Rs. 1,000 amounted to 39,800.

**Punjab.** The total receipts in the Punjab were £96,400, showing an increase of 2 per cent. compared with the receipts of the previous year. The separation of the North-West Frontier Province has not caused any important reduction in the receipts of the last two years, owing to the paucity of wealthy income-tax payers in the districts concerned. Under Part IV. a net total of £74,400 was realised, 6 per cent. having been struck off the initial assessment on objection. About 24 per cent. of the amount realised under all headings was paid by assessees having an income less than Rs. 1,000 per annum, who comprised 29,829 out of a total of 48,925 payers.

**Burma.** The Income Tax Act, though in force in the whole of Burma and the Shan States, has only been made operative in certain selected towns and villages throughout Lower Burma, and in Mandalay town alone in Upper Burma; four fresh villages in the Lower province were brought under the Act during 1902–03. The total collections rose slightly to £81,000, in spite of a fall under "profits of companies." Under Part IV. 12 per cent. of the original assessment was remitted on appeal, considerable difficulty being found in making correct assessments in Rangoon; the final demand was £39,900, payable by 16,227 assessees. The number of assessees having an annual income less than Rs. 1,000 was 17,670 under all classes taxed, the total of assessees being 31,412. In Rangoon town the collections amounted to £40,800.

**Assam.** In Assam the yield of the tax was £20,500, which was rather higher than in the previous year, the main increase occurring under Part IV., which constituted over 45 per cent. of the whole yield. The profits of the tea companies, on which the prosperity of the province mainly depends, are taxed in Calcutta and in London. The number of successful objections was 975, out of 7,436 assessments; the total original demand was reduced, on these representations, by less than 1 per cent. The number of income-tax payers having an income less than Rs. 1,000 per annum was 5,392.

**Madras.** The collections in Madras amounted to £195,700, showing a satisfactory advance above the figures of 1901–02. Of this amount, £147,800, or 75 per cent., was under Part IV. The total amount paid in the city of Madras was £35,900. Against 78,312 assessments under Part IV., 30,255 objections were preferred, and the final demand was nearly 6 per cent. below the original assessment. Of the 82,267 persons finally assessed under all headings, 60,256 were in receipt of incomes of not higher than Rs. 1,000 per annum.

**Bombay.** In the city of Bombay, where more than half the income tax of the Presidency is paid, the receipts of the year were £137,400, excluding Government salaries, or 5 per cent. more than in 1901–02. The initial demand in the city, under all headings, apart from arrears, was £162,800, payable by 35,966 assessees; after revision the figure stood at £138,400,

payable by 31,056 persons and companies. For the whole Presidency the collections amounted to £260,300, compared with £252,900 in the preceding year. Of this amount, £156,200 accrued under Part IV. Of the 91,300 assessees who paid the tax under all the headings, 53,200 had incomes below Rs. 1,000 a year. INCOME TAX.

In the Central Provinces the yield in 1902–03 was £23,500, or rather more than that of the previous year, the increase being distributed over all headings. Under Part IV. the final demand for the year was £14,700, due from 6,905 assessees. Of the persons assessed under all heads, 4,680 had an income less than Rs. 1,000 per annum. Central Provinces.

# CHAPTER IX.

FORESTS.

## FORESTS.

The subjoined tables give the forest receipts, expenditure, and net revenue for each province during the year 1902–03 from the Finance and Revenue Accounts.

| | India, (General) and Berar.* | Bengal. | United Provinces. | Punjab. | North West Frontier Province. | Burma. | Central Provinces. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Receipts - - - | 48,200 | 83,750 | 135,022 | 105,761 | 6,741 | 449,270 | 101,147 | 38,680 | 174,255 | 155,277 | 1,298,103 |
| EXPENDITURE. | | | | | | | | | | | |
| General direction - - | 5,568 | — | — | — | — | — | — | — | — | — | 5,568 |
| Conservancy and Works - | 24,029 | 19,693 | 38,679 | 40,591 | 1,963 | 115,440 | 37,708 | 7,213 | 64,646 | 47,239 | 397,201 |
| Establishments, &c. - - | 17,219 | 22,841 | 28,921 | 23,416 | 1,643 | 77,244 | 39,035 | 14,620 | 57,724 | 64,523 | 347,186 |
| Charges in England - - | 1,828 | — | — | — | — | — | — | — | — | — | 1,828 |
| TOTAL Expenditure - | 48,644 | 42,534 | 67,600 | 64,007 | 3,606 | 192,684 | 76,743 | 21,833 | 122,370 | 111,762 | 751,783 |
| Net Revenue or Forest Surplus, 1902–03 - | — 444 | 41,216 | 67,422 | 41,754 | 3,135 | 236,586 | 24,404 | 16,847 | 51,885 | 43,515 | 546,320 |
| Net Revenue or Forest Surplus, 1901–02 - | —3,383 | 42,340 | 47,118 | 33,948 | — 433 | 215,166 | 9,367 | 12,256 | 55,592 | 44,004 | 451,774 |

* From 1st October 1902 only.

Systematic conservancy of the Indian forests received a great impetus from the passing of the Forest Law in 1878, which gave to the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. The principle upon which the forest administration is based is that State forests should be administered for the public benefit, and they are worked, therefore, with a view of combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and retainers of moisture in the soil. The forests are classed, according to the degree of completeness of the management undertaken, as "reserved," "protected," or "unclassed" forests. In the case of reserved areas the control of the Forest Department is more complete than in the case of the protected or unclassed forests. In the latter category, the area of which cannot be defined with any great exactness, there are included large tracts of uncultivated land, especially in Burma, much of which will in all probability pass into cultivation as agricultural land. Among the most important measures of conservancy are the exclusion, so far as possible, of the yearly fires which used to devastate the forests, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 91,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves there are about 135,000 square miles of State forests, including 9,300 square miles of protected forests and 9,400 square miles of "district protected forests" in the United Provinces. Some part of this area will eventually be brought within the reserve area, and all of it is, with

FORESTS.

more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests with which this chapter deals are, almost exclusively, those which belong to the State. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private and no communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use free of charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. Some of the better-managed Native States, such as Kashmir, Mysore, Travancore and Baroda, have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1903.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,961 and 3,496 square miles. Survey operations were carried on by a detachment of the Forest Surveys in Kurseong, Darjeeling and Kalimpong, and 233 square miles were surveyed on the 4-inch scale. This work was to be completed in 1904, when the Singhbhum survey will be resumed. Settlement operations were in progress in Chittagong. A considerable amount of progress was made with working plans, which have now been sanctioned over an area of 4,295 square miles of forest, while they are being compiled for a further area of 1,257 square miles. The year 1902–3 was on the whole favourable for natural reproduction. The area of regular plantations rose to 2,954 acres, while cultural operations were in progress over a reduced area of 4,242 acres. The planting operations include the raising from seed of a number of rubber-producing trees, among them being the *Hevea brasiliensis* or Para rubber. Attempt was made to exclude fire from 2,210 square miles, and the effort succeeded over nearly 97 per cent. of that area; but the conditions were favourable for forest fires in several parts of the province. The number of cases of breach of the forest law taken into court was 186, about half of these being cases of unauthorised felling or appropriation of forest produce. Nearly 43 per cent. of the total area available was thrown open to animals of all kinds for grazing, including all the unclassed forests, 1,212 square miles of protected forests and 498 square miles of reserves. The two latter areas provided grazing for 368,000 cattle. The yield of timber was 6,715,000 cubic feet, which was 10 per cent. less than in 1901–2, and the out-turn of fuel ($33\frac{3}{4}$ million cubic feet) was also smaller; but the number of bamboos taken from the forests rose from 24 to 26 millions. The financial results show a surplus of £40,500 or nearly 49 per cent. of the gross receipts.

United Provinces.

The reserved forests of the United Provinces rose to 4,171 square miles in 1902–03, including 153 square miles of leased forests; there was also an area of 30 square miles of protected forests under the Forest Department at the end of the year, besides 9,363 square miles of "district protected forests," which are under the Forest Act, but are controlled by district officers. Satisfactory progress was made in the preparation of working plans for the reserved forests, and the area of forests for which plans were complete by the end of the year was 3,842 square miles. Settlements of rights had been made over 3,950 square miles. In the district protected forests no such settlements have as yet been made. There is a scheme in hand for the better protection of selected areas, and when these have been selected a settlement will probably follow. Protection from fire was attempted over

FORESTS. 3,204 square miles, or more than three-quarters of the forests, and it was successful over more than 96 per cent of that area. The area thrown open to cattle, for the whole or part of the year, was 1,380 square miles, and the number of cattle grazed was over 578,000. The yield of the forests was 6,377,000 cubic feet of timber, 9,547,000 cubic feet of fuel, and 15⅘ million bamboos, besides minor produce. The forest receipts were £144,400, and the expenditure was £68,200, leaving a surplus of £76,200, besides a small net receipt from the working of the district protected forests.

Punjab. At the end of 1902–03 the reserved forest area administered by the Punjab Forest Department was 2,294 square miles, besides 117 square miles under military or other control. The protected forests aggregated 4,921 square miles, while an area of 2,266 square miles appears on the books of the Forest Department as unclassed forest. Settlements of rights had been carried out over 2,087 square miles of reserves and 4,888 square miles of protected forests. Surveys were in progress in the Rawalpindi and Chenab divisions. Working plans for several forests were in different stages of preparation, though no new plan was sanctioned during the year. They are complete for 1,829 square miles of protected forests and 779 square miles of reserves, and are under compilation for a further area of 1,045 square miles. For most of the remaining area it is reported that plans are not required. The year was not very favourable as regards forest fires; the area burnt was ·3 per cent. of the total area under the Forest Department; protection was attempted over an area of 865 square miles, of which nearly 1 per cent. was burnt. Natural reproduction was bad, so far as regards the deodar, which holds the most important place in this province; the area of regular plantations rose to 975 acres, and the area under cultural operations rose from 6,183 to 6,475 acres. The cultivation of Spanish chestnut is being tried with success. The total yield of the forests for the year was returned at 3,066,700 cubic feet of deodar and pine timber and 39⅓ million cubic feet of firewood; 34⅓ million cubic feet of timber and fuel were removed by free-grantees and right-holders without charge or at special rates; 6 millions were worked out by Government agency, and 2 millions by purchasers. The area available for grazing under the charge of the Department was 9,481 square miles, and of this nearly 81 per cent. was thrown open to cattle, while an additional 12 per cent. was open during part of the year; 824,700 cattle are reported to have grazed in the forests, for the most part by right under the settlements. The total forest revenue of the year was £106,100, against an outlay of £76,100, yielding a surplus of £30,000.

Burma. A net addition of 1,102 square miles was made to the reserved forest area in Burma during 1902–03, bringing it up to 19,708 square miles. Settlement of rights has been completed over 18,860 square miles, and a considerable area was under settlement. A Survey of India party (No. 20) was engaged on forest surveys in various parts of the province, and minor and local surveys were also carried out by forest survey parties and by forest officers. Working plans were completed for 2,524 square miles by the end of the year, and plans for a further 1,744 square miles were being compiled. In the meantime, annual or preliminary plans of operations are formed for all reserved forests. Fire protection was carried out over a larger area than in the preceding year, but with rather less success, owing to the dryness of the season. Plantations of rubber, teak, pine, and cutch were extended; in the Mergui rubber plantation 770 acres were planted, but the season was a bad one, and the planting was a failure over most of that area. The quantity of teak extracted from the forests was rather less than 8½ million cubic feet, equal to 168,200 tons; of other timbers, 14 million cubic feet were extracted in the form of logs, &c., and 18⅔ millions as fuel. The year was a bad one for floating timber down the rivers, and the output suffered accordingly. The total of teak exports from Burma was 229,600 tons, compared with 244,500 tons in 1901–02, and the average value per ton is stated at about £5½, or a little more than in the preceding year. The receipts for the forest year were £449,200, and the expenditure was £197,600, leaving a surplus of £251,600, which was higher than the surplus of the preceding year, but below the figures of some recent years.

FORESTS.

Central Provinces.

The area of reserved forests in the Central Provinces was 18,897 square miles, of which 14,469 square miles were at the end of the year 1902–03 classed as A. or permanent reserves, and 4,428 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class (as was done with 1,061 square miles of forest in the Mandla division after the close of the year under report) or for possible extensions of cultivation in future years. The Forest Survey parties turned out 313 square miles of detailed survey. The further preparation of working plans was held in abeyance pending reclassification of the forests. Fire was excluded from 97 per cent. of the 5,244 square miles in which special fire protection was attempted, and from 86 per cent. of that partially protected. The year was generally unfavourable for natural reproduction by seed, and attempts at artificial reproduction met with indifferent success. The experiments with the cultivation of tassar silk and lac have not been successful, except in Bilaspur, owing to unfavourable weather. The number of cattle grazed in the forests was nearly two millions. New grazing rules have been introduced, with a voluntary system of village assessment; and a system of differentiated rates for agricultural cattle is being tried in five districts. The amount of timber removed from the forests during the year was 2,528,000 cubic feet, that of fuel 18,387,000 cubic feet, and $7\frac{1}{3}$ million bamboos were extracted, with other minor produce. The forest revenue of the year, including the Berar circle, was £131,500, against an expenditure of £89,400, leaving a surplus of £42,100, compared with a surplus of £30,000 in 1901–02.

Berar.

Berar having been placed under the government of the Central Provinces in 1903, the Berar forests are now administered as a forest circle under that Government. At the close of 1902–03 they covered 3,943 square miles, including 1,768 square miles of timber and fuel reserves, 84 of fodder and thatching grass reserves, and 2,091 of pasture. The working plan for the Amraoti division was revised, and a single plan for the entire area of the Ellichpur division was under preparation. The forests yielded 735,000 cubic feet of timber, and the yield of fuel was nearly three million cubic feet, while $3\frac{2}{3}$ million bamboos were taken out. The bamboos have suffered severely from the attacks of a fungus, new to India, which has been identified and is being closely studied. The number of cattle grazing in the forests was 2,800,000. The results of fire protection were very good, owing partly to heavy rains at critical seasons.

Assam.

The State forests in Assam are divided into reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State other than reserved forests. The area of reserved forests stood at 3,778 square miles at the end of the year. The area of unclassed forests is given as 18,300 square miles; but of this large area perhaps one half consists of grass or treeless tracts. Settlement was completed and notified for 70 square miles during 1902–03, and an area of 134 square miles was surveyed by the Imperial Forest Survey Branch, besides survey work by divisional officers. In Goalpara and the Garo Hills the more valuable of the reserved forests are worked under sanctioned working plans, but for the rest of the forests in the province yearly plans of operations are drawn up. Special fire protective measures extended over 999 square miles, and were successful in respect of nearly the whole of that area; 196 square miles were protected on a less ambitious scale in Goalpara, but about 9 per cent. of it was burnt. The grazing question presents no difficulties in Assam; the reserves afford very little good grazing ground, and are for the most part closed entirely. The large area of unclassed forest was open to all animals throughout the year on payment by professional graziers and free to ryots. Natural reproduction was very good; the plantations comprised 3,252 acres, chiefly of rubber, and 232 acres were under other heads of cultural operations. The larger portion of the produce of the forests consists of sal trees (*shorea robusta*). The gross result of the working of the forests is given as $12\frac{2}{3}$ millions of cubic feet of timber and fuel, against a total of $10\frac{1}{3}$ millions in 1901–02. The forest tramway in Goalpara is said to be economical and to serve its purpose well. The revenue for the forest year ending in 1903 was £39,400, which was better than in any recent year; and the surplus rose from £10,600 to £16,300.

FORESTS.

Madras. There was a net decrease of 111 square miles in the reserved forests and lands in Madras during the year ending in June 1903, due chiefly to the abandonment of land for the extension of cultivation. The total area of reserves was 19,455 square miles, of which 17,657 square miles were classed as forests, the reserves of all classes forming 38 per cent. of the unoccupied area of the presidency. Of the reserved forests, 555 square miles were finally included during the year under report; a further area of 1,175 square miles of reserved lands was awaiting settlement and inclusion in the forests. Two parties of the Survey of India completed 1,411 square miles of topographical survey, and minor survey operations were also in progress. As regards the management of the forests, detailed working plans were sanctioned for 1,399 square miles during the year, and plans for 2,217 square miles were under preparation; but the greater part of the forests is still worked under annual plans. Protection from fire was undertaken over 5,545 square miles, but was successful in only 91 per cent. of that area, against 96 per cent. in 1901–02. The area of the reserved forests open to cattle for grazing was 17,600 square miles, and 1½ million cattle are reported to have grazed in them. Natural reproduction was poor in some parts of the presidency. The regular plantations, covering 27,037 acres, consist chiefly of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast, and there is a large area under other cultural operations. The yield of the forests according to the returns was 3,298,000 cubic feet of timber and 18,661,000 cubic feet of fuel, besides 36 millions of bamboos, and other minor produce; this outturn of timber and fuel was considerably larger than that of the previous year. The total receipts were £172,800, which was the highest on record; and the surplus was £51,100.

Bombay. The area of the reserved forests in the Bombay Presidency was 13,464 square miles at the end of 1902–03, and that of the protected forests 1,033 square miles. Good progress was made in each forest circle in marking out coupes or compartments for exploitation purposes; and a provisional working plan for the babul reserves of Ahmednagar was sanctioned, and one for the Poona teak forests was under consideration. The drought in Sind caused an increase in forest fires, and the whole of the Dang forests in the Northern circle were traversed by fire; but otherwise the destruction caused by fire during the year showed a satisfactory decrease. Natural reproduction was retarded in many parts of the Presidency by the lingering effects of the last year's drought and heat; and in Sind the poor inundation gave unsatisfactory results in this respect. The yield of the forests included four million cubic feet of timber, 30¾ million cubic feet of fuel, and about 4⅓ million bamboos. The revenue amounted to £154,800, and the expenditure to £111,900, leaving a surplus of £42,900.

Coorg. The area of reserved forests in Coorg was 242 square miles, besides 323 square miles of reserved lands and a small area of protected forests; the chief timbers are teak and sandal wood. No new working plans were approved during the year; such plans exist for 178 square miles, but the progress of the plan for the sandal area has been disorganised and, for the time being, abandoned, owing to the continuance of the "spike" disease, from which the sandal trees suffer, and for which no cause or means of prevention is as yet known. The steps taken by the Forest Department appear, however, to have checked the further extension of the epidemic. The season was an unfavourable one as regards fires; protection was undertaken over about 205 square miles, and was successful over nearly 98 per cent. of that area. There was, owing to smaller sales, a decrease in the quantity of timber removed from the forests, which amounted, including all the forests, to 244,500 cubic feet, in addition to 190 tons of sandal wood, compared with 306,400 cubic feet, with 201 tons of sandal wood, in 1901–02. The forest surplus rose from £5,600 to £6,100.

# CHAPTER X.

## AGRICULTURAL AND MINERAL RESOURCES.

### AGRICULTURE.

AGRICULTURE.

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract. There is an Inspector-General of Agriculture with the Supreme Government, whose function it is to guide and correlate the agricultural inquiries carried on throughout India, whether by the Supreme or the Provincial Governments, and to act as adviser to both in all matters pertaining to agriculture; while under him work the Agricultural Chemist, the Entomologist, and the Cryptogamic Botanist. Finally, with a view to more thoroughly co-ordinating the work carried on by these officers and by the various scientific departments, and of directing it to the greatest possible extent towards practical research, a Board of Scientific Advice has been established, consisting of the heads of those departments, and such other scientific authorities as the Government may invite to serve on it; and the Government of India has the advantage of the advice of a special Committee of the Royal Society on the recommendations made by the Board.

The following provincial details on the subjects of seasons and crops, agricultural inquiry and experiment, and the working of the land records organization, are taken from the reports of the Departments of Land Records and Agriculture.

Bengal.

The season 1902–03 in Bengal was on the whole not favourable to agricultural operations, though it was much better than that of 1901–02. The rainfall of June and August was rather lighter than usual, but July and September showed good monsoon conditions. From the middle of October the whole province was practically rainless up to the end of February, and the spring crops, including oil-seeds and sugar cane, yielded a very poor out-turn. The area under autumn crops was 15 millions of acres, or one third of a million less than in the preceding year; the winter rice crop covered 29⅓ millions of acres, against 27⅙ in 1901–02; and 15 millions were returned as having been sown with summer crops, or about one third of a million more than in the previous year. The total area of all crops was 59⅓ millions of acres, compared with a normal area of 62 millions, and with 57⅛ millions in 1901–02. The final estimate of the out-turn of autumn crops was 88 per cent. of the normal; the winter rice crop was estimated to be 94 per cent., and the spring crops 86 per cent. of an average crop. Besides the winter rice crop, which is by far the most important crop of the province, the following crop out-turns may be quoted: autumn rice, 87 per cent. of the normal; jute, 80 per cent.; maize, 91 per cent.; sugar cane, 92 per cent; indigo, 50 per cent.

Experiments with various manures, crops, and methods of cultivation were carried on, as in former years, at the two experimental farms at Burdwan and Dumraon. The results of the trials at Burdwan of the deep-shared Sibpur plough have amply proved its superiority to the local plough. Important experiments with different varieties of cotton were tried at Dumraon, the results of which will, it is hoped, help to solve the problem as to the varieties which may most suitably be introduced in the province. The Chittagong farm has done much to improve the agricultural knowledge of the surrounding people, and has led to the establishment in the district of

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several similar farms. The inquiry as to the alleged deterioration of jute was continued, and different varieties of jute seed were cultivated at Burdwan with satisfactory results. A special matter which has arisen during the inquiry is the alleged watering of jute to make it heavy, and this was being investigated. The results of the examinations in the agricultural class at Sibpur College were satisfactory, and the number of admissions was 15, against 6 in the previous year. Steps are being taken for the improvement of agricultural education by the establishment of small demonstration gardens in connection with some secondary schools, and by the opening of agricultural classes at five other selected schools.

The Silk Committee, formed in 1898–99 for the promotion of Pasteur's method of silkworm rearing, continued its operations in the Malda, Birbhum, Rajshahi, Bogra, and Murshidabad silk-rearing districts. The operations, which consist in instructing the rearers how to select seed and to rear silkworms, have been attended with a considerable measure of success, and the record of the work done during the year is one of continued progress. Sericultural instruction is given in the Industrial School at Rampur Boalia, of which the sericultural school is a separate branch. Various scholarships are given by district boards and others, and the success of the students in passing the examinations and in obtaining employment subsequently is very satisfactory.

There is no land record staff in Bengal, but in the tracts which have been cadastrally surveyed a considerable amount of statistical information is available as to cultivation, stocks and crops, and attempt is being made to introduce a record of the mutations of tenures. Reference has already been made, in the Registration chapter of this Statement, to the working of the Bengal Land Records Maintenance Act of 1895. Records are maintained in the Government and wards' estates which have been surveyed and settled.

United Provinces.

The monsoon of 1902 in the United Provinces was favourable, and there was also no lack of moisture for sowing the spring crops, though the growing season was dry and irrigation was resorted to on a large scale. The crop area of the autumn harvest was therefore 200,000 acres in excess of the preceding year's figures, and amounted to about 23 million acres, and the area under spring crops, 19½ million acres, was nearly half a million larger than in 1901–02. As regards the nature of the crops sown, rice, maize, early millets and sugar, showed some falling off, for the most part owing to the light rains in June, and gram was below the usual crop. On the other hand, the later millets, cotton, mustard, and wheat covered a larger area. Wheat and rice each occupied an area of about 7 million acres, and gave an out-turn over the whole provinces of 95 and 80 per cent. respectively of the normal. Barley (4 million acres), yielded 95 per cent.; peas and gram (7 millions) 80 per cent.; and millets (6½ millions) 85 to 95 per cent. Indigo, sown on the much reduced area of 136,000 acres, gave an out-turn which was 80 per cent. of the normal, and sugar cane, occupying 1⅛ million acres, yielded only 75 per cent. It is, however, stated that these estimates are made by the local staff whose tendency is towards under-statement, and that the actual results were probably more favourable than would appear.

Ninety per cent. of the village accountants under the Land Records Department hold certificates from the patwari school, and 7 per cent. are exempted by reason of their age or efficiency. Their work is tested by superior officers, and is found to contain a very small percentage of errors.

The Agricultural Department gave assistance to the public by the distribution of implements and seeds, boring for wells, issue of seven bulls for the improvement of the breeds of cattle, a small veterinary hospital at Cawnpore, and the circulation of advice respecting crop pests. The seed distribution is being extended; about 2,000 maunds of sound seed were sent out during the year, with a small resultant profit, which is devoted to extending operations. It is issued for the most part on loan, the produce being returned at harvest time *plus* 25 per cent., and there is practically no loss in recovery.

At the Cawnpore experimental farm the season 1902–03 was not, on the whole, unfavourable; but cotton and potatoes suffered very severely from frosts in December. Besides these crops, experiments were continued with varieties of sugar cane, maize, jowar, and Kabuli grain, in deep and shallow

tillage, and with various manures. It has been decided to exclude all experimental work from the Meerut farm, the operations being confined to the demonstration of improved methods. The work of the year ending in September 1902 was carried on under the old programme, and was in many respects unsatisfactory. There is also a small demonstration farm at Sultanpur, under private management, which did useful work in exhibiting different varieties of crops, and another privately owned farm at Jatau. Agricultural shows were held at several places, and were attended by officials of the Agricultural Department. AGRICULTURE.

In the Punjab the conditions were favourable for sowings in both the harvests of 1902–03. In each season there was a break which caused large areas of unirrigated crops to dry up, but there was good rain at the end of each harvest, and the result was a large out-turn of grain, particularly in the spring crop, though fodder was deficient. For the whole province, out of $26\frac{1}{4}$ million acres sown, crops failed on $5\frac{3}{4}$ millions, of which nearly half was in the Delhi division. The autumn sown area was over $12\frac{1}{2}$ millions of acres, and the following spring crop covered nearly $13\frac{3}{4}$ millions; but the areas actually harvested were $9\frac{1}{3}$ and 11 million acres respectively. Wheat occupied more than seven million acres, of which about three millions were unirrigated. The yield of the food crops as a whole is stated to have borne the proportion of 96 per cent. to the normal, while wheat yielded 97 per cent. The latter is the most important of the crops of the province, and its yield is estimated at $2\frac{1}{3}$ million tons. Sugar was grown on about one third of a million acres, and yielded a crop equal to 94 per cent. of the normal. Cotton was grown on a million acres, and was above a normal crop. Punjab.

The total area of crops matured on irrigated land in the year 1902–03 was about $9\frac{1}{3}$ millions of acres, of which about $3\frac{7}{8}$ millions were irrigated from wells. Colonisation on the Chenab Canal, the extension of the Western Jumna, Bari Doab, and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years :—

| | Acres. | | Acres. | | Acres. |
|---|---|---|---|---|---|
| 1893–94 - - | 2,523,378 | 1897–98 - - | 4,395,453 | 1901–02 - - | 4,530,766 |
| 1895–96 - - | 3,161,008 | 1899–1900 - | 4,243,524 | 1902–03 - - | 4,887,677 |

On the Chenab Canal the area allotted to cultivators in the year ending in September 1902 amounted to 120,584 acres, bringing the gross allotted area to a total of 1,701,130 acres ; and the area of crops sown was 1,580,481 acres. This was largely in excess of the area sown in the previous year, but in consequence of the failure of the winter rains and the low supplies in the canal it is estimated that the gross out-turn of the crops was less than in that year.

The staff of patwaris under the Land Records Department was 7,788 in number. It was in contemplation to consolidate the different district patwari funds ; and the question of making the service of these public servants pensionable was under consideration. The first annual report of the Lyallpur experimental farm was issued. The chief object which has been kept in view in arranging the work of the farm is the study of different varieties of Punjab crops, especially of wheat, and their improvement by cross-fertilisation and selection. There is a young date plantation at Mooltan, and various orchards from which a considerable number of young fruit trees were distributed. Experiments with the drought-resisting grass, *paspalum dilatatum*, and the salt bush, both Australian plants, have not yet shown conclusive results.

The amount of rainfall in the North-West Frontier Province in the year 1902–03 was about normal, and though the distribution of it during the season gave rise to anxiety, conditions were on the whole favourable. The area harvested, both in the autumn and the spring harvests, much exceeded that of the preceding year, though it fell short of that of 1900–01. It was just short of two million acres, of which 699,000 acres were under wheat, and 358,000 acres under maize, the aggregate area of food grains being $1\frac{3}{4}$ million acres. The out-turn of irrigated crops was everywhere good ; that of irrigated crops was about an average one in almost every case. North-West Frontier Province.



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The conduct and efficiency of the patwari staff is reported to have been on the whole fairly good. Abstract village note-books are kept up to date in all districts except in Kohat, and are found of much service. The disposition and habits of the agriculturists of the province do not favour the introduction of new products or processes, and there is not, therefore, any progress to record in this direction.

Central Provinces.

In the Central Provinces the monsoon started late and was in considerable defect in most districts, but in the northern and central portions of the province the rainfall was so well distributed that nearly all crops did well. In the south, on the other hand, the light rainfall prevented the transplanting of rice, while the failure of the late monsoon not only ruined the crop, but left much land too dry for spring sowings. While, therefore, the northern districts and the cotton-jowar tracts of the south-west enjoyed one of the most prosperous years on record, there were some famine symptoms in the rice country of the Wainganga valley and Chhattisgarh, and some relief had to be given. Of autumn crops, the area under rice was 8 per cent. below normal, but jowar showed an increase, and the area under cotton was no less than 66 per cent. above the average of the last ten years. The area under the spring crops, wheat, gram and linseed, diminished by about 4 per cent. Taking the province as a whole, the out-turn of the year is given as 82 per cent. of the normal cropping of a standard area. The percentage for wheat is given as 115, for gram and linseed 87 and 90 respectively, for rice only 49; cotton, jowar and sesamum gave normal yields over their much-expanded areas. The year marks the beginning of State irrigation in the province, nine large tanks being opened as famine works, and several large projects being prospected or begun. The area under irrigation from village tanks and wells shrank, owing to the dryness of the year, to 549,000 acres.

The Land Records staff was revised and strengthened in Bilaspur, and similar measures have been approved for Raipur since the close of the year. Various important changes were also made in the system of Land Records. Besides their ordinary duties, the whole staff had much extra work in the preparation of schemes for suspension, remission, and abatement of the land revenue demand.

The Agricultural Department in the Central Provinces has been largely developed during the last two years. The staff has been strengthened, two experimental farms have been started, at Hoshangabad and Raipur, in addition to the already existing farms at Nagpur and Telinkheri, several demonstration farms have been established, district agricultural associations and a Hindi Agricultural Gazette have come into existence, while attention has been given to the improvement of agricultural education. Of the experimental farms, Hoshangabad is to be devoted chiefly to wheat and other spring staples, while Raipur will be mainly concerned with rice, thus leaving the Nagpur farm to deal chiefly with the locally important staples of cotton and millet. The associations form a link between the Department and the agricultural community, and will be able to distribute seed, disseminate knowledge, and promote discussion on agricultural questions.

Burma.

The character of the monsoon of 1902 was unsatisfactory throughout Burma. The rains set in well, and were up to the average during the central period, but failed early; the rains of October and November, indispensable to the success of the paddy crops, were lacking. The area cropped fell from $11\frac{2}{3}$ million acres to $11\frac{1}{3}$ millions. Of this amount, nearly $8\frac{1}{3}$ million acres were sown with rice, but crops failed to mature over a larger area than usual. The percentage of a normal crop yielded by rice in the year was 94 per cent. in the 14 chief rice-producing districts, and for the whole province 88 per cent. Other crops showed no very important features. It is said that the cultivation of cotton, though not extensive at present compared with other cotton-producing provinces, is making fairly satisfactory headway. The area under this crop was 141,500 acres, and the percentages of out-turn were good.

The Land Records Department keeps up to date the information gained at settlement, and conducts a supplementary survey annually, for the purpose of fixing the revenue demand, over an area which amounted to 37,634 square miles in 1902–03. The Department has been increased, but is said to be

still undermanned, and will probably require to be strengthened; there were 127 inspectors and 1,240 surveyors in 1902–03. There are 18 survey schools, at which 512 scholars attended during the year. AGRICULTURE.

Beyond experimental gardens there are no establishments in the province for the conduct of agricultural experiments; but seeds of various products which appear to merit investigation are distributed for cultivation in suitable parts of the province.

In Assam the rainfall of the year 1902–03 was well above the normal in both valleys of the province, but was not well distributed; a deficiency of the rains in October and November detracted from the character of the winter rice crop, which would otherwise have yielded a bumper out-turn, and the scantiness of the winter rains occasioned a short out-turn of pulse and mustard. The area under crops was 5 millions of acres, of which $3\frac{7}{8}$ millions were under rice and one third of a million under tea. The out-turn of early rice was good, but late rice yielded a distinctly poor crop. The out-turn of tea has been restricted in recent years with a view to reducing the excessive supply. Owing to the good harvest, the price of rice was generally fairly low. Assam.

The number of village officials under the Land Records Department was 1,136; and of these all but 58 have obtained a certificate in surveying. There are three survey schools in the province, at which 170 certificates were granted during the last two years. The work of this staff requires careful supervision, the state of the land records varying from district to district, according to the personal attention given by the district officers. Satisfactory progress is being made in the introduction of a system of inquiry into and tabulation of agricultural conditions. Books for this purpose were instituted during the year in the district of Nowgong, the only district in which they were not previously kept.

At the newly started Shillong experimental farm, experiments were continued with a view to discover new crops that may be grown profitably in the Khasi Hills. Among potatoes, the *magnum bonum* variety was found to meet the requirements best, as it grows freely and does not seem to be liable to be attacked by the blight which frequently follows on the heavy June rainfall. Experiments with fodder plants were also made; and flax was grown with the result that the produce was reported by a Calcutta firm to have "the making of a good merchantable fibre if properly treated." The Government dairy started at Shillong a few years back, with a view to introducing a new industry in the province, has proved a great success financially, and has led to the establishment of a private dairy also at Shillong. Various other experiments have been made by several agencies, and samples of tobacco grown by a tea planter have been favourably reported on.

In Madras the south-west monsoon rains of 1902 were generally above the average, and the north-east monsoon also brought in good rains throughout the Presidency, except in the two northernmost districts. The area under crops, excluding permanently settled estates and those held under exceptional tenures, was $27\frac{7}{8}$ million acres, including $6\frac{2}{3}$ millions of "wet" cultivation, against $27\frac{1}{10}$ millions in 1901–02 and an average of $26\frac{1}{8}$ millions for the past five years. Rice covered about $7\frac{1}{4}$ millions, having increased by one third of a million, while millets ($9\frac{1}{8}$ millions) showed a substantial decline. The area under cotton was $1\frac{1}{2}$ million acres, and was 200,000 acres above the corresponding area in 1901–02. The out-turn of rice, according to the returns, was something like 86 per cent. of a normal crop; but the averages are based on the figures of the village officials, which are notoriously underestimated, and the crop was a good one. The average prices of rice for the year were lower in all districts. Madras.

The village and taluk accounts kept by the staff under the Land Records Department were, on the whole, fairly well maintained. Village registers are kept up in many districts, but not much progress was made in bringing them up to the end of the year under review.

Two experimental farms, at Bellary and at Koilpatti in the Tinnevelly district, were started in the previous year, and some preparatory work was still being done. Crops of cotton were grown during 1902–03, and experiments were also tried with sweet potatoes. Cotton did well at Bellary, but

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failed owing to excessive rain at Koilpatti. No noteworthy results are as yet recorded. There is also an experimental station at Samalkot, formed for the purpose of investigating sugar-cane disease. Owing to the prevalence of two serious diseases it was decided not to distribute cane to cultivators during the year. Experiments are to be made at the farm attached to the Saidapet College with a variety of indigo known as *indigofera arrecta*. The number of students at the College rose to 50. Orders were passed during the year on the subject of the reform of primary education; elementary science is to be a compulsory subject wherever a trained teacher is available, and a passed student from Saidapet is to be attached to every training school as an additional teacher.

Bombay.

For Bombay the latest detailed report deals with the year ending on the 31st October 1902. In that year the seasonal conditions were uneven; in parts of each division fair crops were obtained, but some tracts in Gujarat, Khandesh, Ahmednagar and the Southern Mahratta country again suffered considerably from deficient rainfall. Sind suffered from a low inundation. It may be added that the monsoon of 1902 opened rather late, but that the subsequent rains were generally more favourable than during the two preceding years, and that a fairly good harvest of autumn crops was secured, while the spring crops promised an equally fair out-turn. The area under crops in the whole Presidency in the year November 1901 to October 1902 was $26\frac{1}{6}$ millions of acres, of which $3\frac{1}{3}$ millions were in Sind; the figures for the Presidency proper show an increase of about 9 per cent. as compared with the previous year, those for Sind a decline of 9 per cent. In Gujarat the area of the spring crops was restricted, owing to a plague of rats; elsewhere in the Presidency proper, there was a considerable expansion of the area of spring sowings. Half the crop area of the Presidency consisted of millets; cotton covered 11 per cent. of it. The area irrigated in the Presidency, $3\frac{7}{10}$ millions of acres, consists chiefly of lands in Sind irrigated by Government or private canals; these amounted to $2\frac{3}{4}$ million acres, the area irrigated in the Presidency proper being 773,000 acres, chiefly of well irrigation. The out-turn of crops, owing to the deficient rainfall and the plague of rats, was below the normal everywhere, save in the Satara district, and in some parts of Gujarat the deficiency amounted to a serious failure of the crops.

At the Surat and Nadiad demonstration farms the year was not a favourable one, and no results of value were obtained. At Poona and Manjri, however, much useful work was done, in connection with cross-breeding, selection of seed, trial of foreign varieties, and manure experiments, including a sewage farm. In the cross-breeding of varieties of cottons and of wheats, which must necessarily be the work of years, the first season gave fair promise. The experimental cultivation of rhea has been abandoned, the crop not being suited to the Presidency. The distribution of foreign ground nut seed produced favourable results in the first year, though no final conclusion can yet be formed. Australian drought-resisting grasses were tried for the second year without success.

The ordinary work of the Land Records Staff was again much interrupted by special duties in connection with famine, and no reduction of the heavy arrears of measurement and classification was effected. The preliminary records of rights have been completed in 35 talukas, and the work will be pushed forward vigorously under the Act IV. of 1903, which provides for the maintenance of a record in each village. Substantial progress is being made with the training of village accountants in surveying, a reasonably strict test of proficiency in field work being exacted.

Berar.

In Berar the late commencement of the monsoon and a prolonged break in the rains in August caused some anxiety, and excessive rain in November and December damaged the cotton crops. The district estimates show a yield rather less than normal for the millet crop, something like 70 per cent. for the cotton crop, and rather less for mustard, while the spring crops, wheat and linseed, are said to have been between 70 and 75 per cent. of the normal. The crop area amounted to $7\frac{1}{4}$ millions of acres, of which $3\frac{1}{6}$ millions were under large millets and $2\frac{3}{4}$ millions under cotton. These, with the mustard crop, constituted the bulk of the autumn crops. The spring crops included rather less than one quarter of a million acres under

wheat. Prices have by no means come down to the normal level, but the year's figures show a satisfactory improvement. AGRICULTURE.

An agricultural staff of district and circle inspectors was introduced into the Akola and Buldana districts in 1901, and was to be established in the remaining districts in 1904. Their work is still in an early stage, but it is reported that the staff worked satisfactorily and showed its utility in the preparation of land records. It appears, however, that the number of inspectors is insufficient. Circle note-books were started during the year, and particulars of 1,810 villages in Akola and Buldana were thus written up.

## AGRICULTURAL PRODUCE.

Before giving the area under different crops, and its territorial distribution, it is necessary to explain that the "crop area" is in all cases greater than the area of cultivated land, owing to double cropping. The extent to which this practice prevails is shown at the end of the following table, which contain the detailed analysis of the crop area. Agricultural statistics.

### TERRITORIAL DISTRIBUTION OF THE PRINCIPAL CROPS IN 1901-02.

*Figures in Thousands of Acres, omitting 000.*

I.

| | Rice. | Wheat. | Barley. | Millets. | | | Gram (Pulse). | Other Food Grains including Pulses. | Total Food Grains. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cholum or Jowar. | Cumbu or Bajra. | Other Millets and Maize. | | | |
| Upper Burma | 1,489 | 22 | — | 1,029 | 113 | 78 | 77 | 293 | 3,101 |
| Lower Burma | 6,777 | — | — | 1 | — | 14 | 1 | 29 | 6,822 |
| Assam | 3,602 | — | — | — | — | 1 | 1 | 81 | 3,685 |
| Bengal | 36,061 | 1,400 | 1,340 | 124 | 62 | 2,949 | 1,020 | 5,461 | 48,417 |
| Agra | 4,398 | 4,776 | 3,047 | 2,091 | 1,616 | 1,626 | 3,949 | 4,287 | 25,790 |
| Oudh | 2,736 | 1,712 | 1,045 | 344 | 345 | 771 | 1,720 | 2,336 | 11,009 |
| Punjab | 678 | 5,657 | 579 | 855 | 1,352 | 1,244 | 1,187 | 1,260 | 12,812 |
| North-West Frontier Province | 28 | 511 | 114 | 39 | 120 | 383 | 94 | 74 | 1,363 |
| Sind | 938 | 499 | 13 | 541 | 807 | 2 | 79 | 211 | 3,090 |
| Bombay | 1,432 | 1,100 | 17 | 6,770 | 5,524 | 644 | 430 | 2,712 | 18,659 |
| Central Provinces | 4,543 | 2,622 | 15 | 1,965 | 46 | 183 | 947 | 3,725 | 14,046 |
| Berar | 36 | 281 | — | 2,885 | 87 | 8 | 153 | 366 | 3,816 |
| Madras | 7,237 | 17 | 3 | 5,104 | 3,093 | 1,963 | 122 | 6,498 | 24,037 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 82 | 10 | 45 | 71 | 32 | 86 | 5 | 22 | 353 |
| Total | 70,067 | 18,607 | 6,218 | 21,819 | 13,197 | 9,952 | 9,785 | 27,355 | 177,000 |

II.

| | Oilseeds. | Condiments and Spices. | Sugar. | Fibres. | | | Indigo. | Opium. | Tobacco. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cotton. | Jute. | Other Fibres. | | | |
| Upper Burma | 803 | — | 7 | 137 | — | — | 1 | — | 24 |
| Lower Burma | 39 | — | 11 | 10 | — | 1 | — | — | 38 |
| Assam | 275 | 7 | 42 | 4 | 13 | 2 | — | — | 3 |
| Bengal | 3,556 | 276 | 712 | 106 | 2,266 | 158 | 311 | 211 | 531 |
| Agra | 607 | 50 | 970 | 1,119 | — | 78 | 157 | 207 | 48 |
| Oudh | 196 | 11 | 259 | 35 | — | 21 | 13 | 182 | 16 |
| Punjab | 622 | 28 | 357 | 856 | — | 43 | 55 | 7 | 40 |
| North-West Frontier Province. | 38 | 3 | 25 | 20 | — | — | — | — | 6 |
| Sind | 360 | 6 | 3 | 127 | — | 1 | 7 | — | 10 |
| Bombay | 1,341 | 180 | 51 | 2,803 | — | 123 | 1 | — | 84 |
| Central Provinces | 1,695 | 38 | 23 | 981 | — | 74 | — | — | 11 |
| Berar | 414 | 49 | 1 | 2,683 | — | 15 | — | — | 20 |
| Madras | 1,992 | 472 | 136 | 1,381 | — | 48 | 247 | — | 121 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 30 | 1 | — | 39 | — | — | — | — | — |
| Total | 11,968 | 1,121 | 2,598 | 10,301 | 2,279 | 564 | 792 | 607 | 952 |

AGRICULTURAL PRODUCE.

III.

| —— | Tea. | Coffee. | Fodder Crops. | Orchards and Garden Produce. | All other Crops. | | Total Area Cropped during the Year. | Area Cropped more than once. | Net Area Cropped during the Year. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Food. | Non-Food. | | | |
| Upper Burma - - - | 2 | — | 30 | 43 | 78 | 92 | 4,318 | 265 | 4,053 |
| Lower Burma - - | — | — | — | 334 | 64 | 57 | 7,376 | 2 | 7,374 |
| Assam - - - - - | 338 | — | 37 | 332 | 31 | 118 | 4,887 | 282 | 4,605 |
| Bengal - - - | 126 | — | 80 | 1,006 | 1,178 | 1,039 | 59,973 | 10,614 | 49,359 |
| Agra - - - - | 8 | — | 695 | 260 | 87 | 69 | 30,645* | 4,811 | 25,834 |
| Oudh - - - | — | — | 89 | 89 | 51 | 5 | 11,976 | 2,861 | 9,115 |
| Punjab - - - | 10 | — | 1,553 | 118 | 293 | 14 | 24,390† | 2,882 | 21,508 |
| North-West Frontier Province | — | — | 33 | 9 | 20 | 2 | 2,198‡ | 616 | 1,582 |
| Sind - - - - - | — | — | 2 | 36 | — | 18 | 3,660 | 280 | 3,380 |
| Bombay - - - | — | — | 15 | 140 | — | 5 | 23,402 | 611 | 22,791 |
| Central Provinces - - | — | — | 248 | 77 | 41 | 10 | 17,244 | 783 | 16,461 |
| Berar - - - | — | — | 1 | 34 | — | — | 7,033 | 13 | 7,020 |
| Madras - - - - | 12 | 54 | 162 | 734 | — | 343 | 29,739 | 3,584 | 26,155 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | — | 66 | 3 | 5 | 3 | 4 | 504 | 30 | 474 |
| Total - - - | 496 | 120 | 2,948 | 3,217 | 1,846 | 1,776 | 227,345 | 27,634 | 199,711 |

* Includes 500,000 acres on which crops failed.
† „ 7,582,000 „ „ „
‡ „ 679,000 „ „ „

Regarding some of the more important staples of Indian agriculture, particulars for the year 1902–03 are given below.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

| —— | Average Wheat Area for preceding Five Years. | Areas Cultivated with Wheat in | |
|---|---|---|---|
| | | 1901–02. | 1902–03. |
| | Acres. | Acres. | Acres. |
| Punjab - - - - | 6,536,600 | 7,227,100 | 7,111,700 |
| North-West Frontier Province - | — | 796,500 | 822,900 |
| United Provinces - - - | 6,051,700 | 6,461,700 | 6,926,200 |
| Bengal - - - - | 1,508,500 | 1,408,300 | 1,445,900 |
| Central Provinces - - - | 2,066,900 | 2,620,100 | 2,272,500 |
| Bombay - - - - | 1,702,600 | 1,510,500 | 1,617,900 |
| Sind - - - - - | 436,000 | 534,000 | 301,600 |
| Berar - - - - | 299,000 | 280,100 | 216,900 |
| Hyderabad - - - - | 772,700 | 603,200 | 508,800 |
| Rajputana - - - - | 989,300 | 541,800 | 774,700* |
| Central India - - - - | 1,283,700 | 1,460,100 | 770,900* |
| Mysore - - - - | 3,500 | 3,700 | 5,100 |
| Total - - | 21,650,500 | 23,447,100 | 22,775,100 |

* Incomplete.

The season was favourable, though of an abnormal character, in the important wheat-growing areas of Northern India. In the Punjab especially, which is the most important wheat-growing province, the yield is given as 29 per cent. above the figures of the preceding year; part of this increase is due to the employment of revised rates of produce, but the out-turn is undoubtedly higher than in that year, though the area, owing to smaller sowings on irrigated land, is less. In the United Provinces the yield was also a very good one. In Bengal alone was the result of the wheat crop unfavourable, compared with the average of recent years. In the Central Provinces, Central India, and Rajputana, the conditions were favourable, and there was a very much greater yield in Bombay than was returned in 1901–02. The estimated out-turn of the year in the chief wheat-growing provinces is given in the margin, in comparison with the yield

| —— | 1901–02. | 1902–03. |
|---|---|---|
| | Tons. | Tons. |
| Bengal - - - | 391,500 | 501,100 |
| United Provinces - | 2,401,900 | 2,972,500 |
| Bombay and Sind - - | 288,000 | 571,000 |
| Punjab - - - | 1,846,300 | 2,389,900 |
| Central Provinces - - | 571,000 | 666,000 |

of 1901–02. The total estimate for India was 7,774,800 tons, against 6,063,500 tons in the preceding year, and an average of 6,181,000 tons for the five preceding years. Wheat exports are subject to great fluctuations. The figures are as follows :— AGRICULTURAL PRODUCE.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1,053,000 | tons in | - | 1885–86 | 976,000 | tons in | - | 1898–99 |
| 689,000 | „ | - | 1889–90 | 485,000 | „ | - | 1899–1900 |
| 1,515,000 | „ | - | 1891–92 | 2,500 | „ | - | 1900–01 |
| 500,000 | „ | - | 1895–96 | 366,000 | „ | - | 1901–02 |
| 95,000 | „ | - | 1896–97 | 515,000 | „ | - | 1902–03 |

The area under, and the yield of, the main oil-seed crops for all India may be approximately given thus :— OIL SEEDS.

| | Average for preceding Five Years. | 1901–02. | 1902–03. |
|---|---|---|---|
| Area in acres - Linseed, rapeseed, and mustard. | 5,343,100 | 5,629,300 | 6,035,300 |
| Area in acres - Sesamum oil-seeds - | 2,580,500 | 3,018,400 | 3,468,800 |
| Total - - | 7,923,600 | 8,647,700 | 9,504,100 |
| Yield in tons for all seeds, so far as reported | 968,400 | 946,800 | 1,272,763 |

The above figures do not include some areas where a considerable amount of the seeds is grown, and the area on which they are sown in conjunction with other crops in the United Provinces has not been taken into account. The area under these crops was specially large in 1902–03, and in several provinces they were grown under favourable conditions, though the rape-seed crops in the Punjab and in Bengal, which contain a large proportion of the area under this crop, suffered from unfavourable weather. The sesamum crop was good. The total amount and value of the oil-seeds exported in the last two years is shown in the margin. The sudden development and expansion of the trade in cotton-seed is very remarkable, this article having in a year or two reached among oil-seeds the second place in quantity and the fourth in value. The seeds came into demand in 1901 owing to the excessive prices of Egyptian seed caused by speculation. Earthnuts, though exported in smaller quantities than in 1901–02, maintained a high level in comparison with that of the five years following 1895–96, when the combination of drought and disease (now combated by introducing fresh varieties) devastated the crop. The Bombay crop of 1902–03 was not satisfactory owing to deficiency of moisture, but in Madras the crop was grown on an exceptionally large area, and the yield was estimated at 83 per cent. of the normal. Taking the two Presidencies together, the area sown was 468,500 acres, against 434,200 acres in 1901–02 and an average of 267,500 acres in each of the preceding five years.

| | 1901–02. | | 1902–03. | |
|---|---|---|---|---|
| | Tons. | £ | Tons. | £ |
| Linseed - - | 366,400 | 4,509,000 | 316,400 | 3,794,000 |
| Rape-seed - | 346,200 | 2,970,000 | 196,300 | 1,647,000 |
| Cotton-seed - | 101,800 | 309,000 | 198,700 | 674,000 |
| Sesamum - - | 122,400 | 1,429,000 | 186,600 | 1,940,000 |
| Castor-seed - | 66,200 | 573,000 | 87,600 | 614,000 |
| Earthnuts - - | 54,300 | 525,000 | 51,800 | 477,000 |
| Other sorts - | 90,900 | 871,000 | 72,300 | 776,000 |
| Total - - | 1,148,200 | 11,186,000 | 1,109,700 | 9,922,000 |

The rice crop of the season 1902–03 was considerably above the average of recent years in Madras, and the important winter rice crop of Bengal gave a satisfactory yield. In Burma the crop was less than that of 1901–02, but RICE.

AGRICULTURAL PRODUCE.

13 per cent. above the average. The figures estimated for the last two years are as follows :—

| | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of preceding Five Years. | 1901–02. | 1902–03. | Average of preceding Five Years. | 1901–02. | 1902–03. |
| Bengal | 38,517,000 | 35,095,000 | 37,082,000 | 16,611,000 | 13,610,000 | 17,705,000 |
| Madras | 6,747,000 | 6,858,000 | 7,300,000 | 2,348,000 | 2,574,000 | 2,716,000 |
| Burma | 5,846,000 | 6,558,000 | 6,603,000 | 2,337,000 | 3,030,000 | 2,651,000 |

Other provinces, notably Assam, the United Provinces, Sind, and the Central Provinces, produce a large quantity of rice, a considerable proportion of their cultivable area (generally amounting to about 20 million acres) being thus employed, as may be seen from the table given earlier in this chapter. The quantity of rice and rice-flour exported from India and Burma beyond the sea in 1902–03 was 2,375,000 tons, which was largely in excess of the total of the preceding year. More than 77 per cent. of the exports went from Burma, which also exported 113,500 tons of paddy and 317,000 tons of husked rice to other provinces and states in India. It is estimated that Burma has this year (1904) an exportable surplus of 2,199,000 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury a net sum of £823,300 in 1902–03, against £595,700 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

COTTON.

The area under cotton in India is returned and estimated as follows :—

| | Average Cotton Area for preceding Five Years. | 1901–02. | 1902–03. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Madras (ryotwari villages only) | 1,396,000 | 1,351,000 | 1,527,000 |
| Bombay, Sind, and Bombay Native States | 4,544,000 | 4,524,000 | 4,430,000 |
| United Provinces | 1,009,000 | 1,154,000 | 1,255,000 |
| Punjab and North-West Frontier Province | 1,002,000 | 1,027,000 | 1,221,000 |
| Central Provinces | 757,000 | 980,000 | 1,152,000 |
| Berar | 2,284,000 | 2,689,000 | 2,766,000 |
| Nizam's Dominions | 1,588,000 | 1,689,000 | 2,114,000 |
| Burma | No estimate available. | 131,000 | 134,000 |
| Central India | 460,000 | 529,000 | 586,000 |
| Rajputana | 312,000 | 282,000 | 457,000 |
| Bengal | 158,000 | 119,000 | 114,000 |
| Total | 13,510,000 | 14,475,000 | 15,756,000 |

The area is the highest returned by the reporting districts during the last ten years, and except in Bengal and Bombay there is a considerable increase as compared with 1901–02. The season was also favourable, and the yield is given as 2,800,000 bales, having increased in a larger proportion than the area. In the United Provinces and Hyderabad the crop was not so good as that of the preceding year, but elsewhere it was good, and in Bombay remarkably good. The average yield for the last five years was about two million bales.

The exports of raw cotton from India were—

| | | | |
|---|---|---|---|
| 1894-95 | 3,387,000 | cwts., valued at | £5,806,000 |
| 1896-97 | 5,216,000 | „ „ | 8,647,000 |
| 1897-98 | 3,723,000 | „ „ | 5,914,000 |
| 1898-99 | 5,411,000 | „ „ | 7,459,000 |
| 1899-1900 | 4,373,000 | „ „ | 6,617,000 |
| 1900-01 | 3,576,000 | „ „ | 6,752,000 |
| 1901-02 | 5,700,000 | „ „ | 9,617,000 |
| 1902-03 | 6,045,000 | „ „ | 9,838,000 |

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TEA.

The following is an estimate of the cultivation and the production of tea in British India and Travancore during recent years; no figures are available regarding its cultivation in Cochin State:—

| | Area under Tea, in Acres (Mature and Immature Plants). | | | Production of Tea in Lbs. | | |
|---|---|---|---|---|---|---|
| | 1900. | 1901. | 1902. | 1900. | 1901. | 1902. |
| Bengal - - - | 134,572 | 135,129 | 135,158 | 46,533,000 | 46,204,000 | 46,028,000 |
| Assam - - | 337,327 | 338,186 | 339,640 | 141,119,000 | 134,896,000 | 132,117,000 |
| Madras - - - | 6,107 | 6,184 | 6,613 | 852,000 | 827,000 | 1,067,000 |
| United Provinces - | 8,055 | 8,252 | 8,116 | 2,298,000 | 2,420,000 | 2,139,000 |
| Punjab - - | 9,745 | 10,235 | 9,324 | 2,135,000 | 2,087,000 | 1,616,000 |
| Travancore - - | 25,202 | 25,279 | 24,880 | 4,253,000 | 4,608,000 | 5,360,000 |
| Burma - - | 1,479 | 1,502 | 1,521 | 271,000 | 261,000 | 262,000 |
| Total - - | 522,487 | 524,767 | 525,252 | 197,461,000 | 191,303,000 | 188,589,000 |

The addition to the acreage under tea made in 1902 was, therefore, 485 acres only, compared with an addition of 2,280 acres in the preceding year. During some recent years, notably 1897 and 1898, the growth of the tea area was very rapid, but the present tendency is towards restricting the excessive output, under the discouragement of low prices. The area under mature plants increased by 16,273 acres, owing to recent extensions coming into full bearing; and the newly planted area is now, therefore, less than 7 per cent. of the whole. The total area under tea is now 85 per cent. greater than it was in 1885. The output is 163 per cent. greater, though this showed a diminution of $2\frac{3}{4}$ million lbs. in 1902, ascribed less to the voluntary limitation of plucking than to unfavourable climatic influences and the shortness of labour, and perhaps also to some deterioration of the plants through imperfect cultivation. The tea gardens of India are reported to have given employment during 1902 to 497,500 persons permanently and 90,900 temporarily. The production of tea in India and Ceylon has increased so much more rapidly than the consumption in the United Kingdom, which is the principal market for these teas, that there has been a heavy fall in price, and in 1902 prices at the London sales were unduly depressed by the anticipations of a large output being thrown on an overweighted market, until at the close of the season, with the assurance of only a moderate crop, prices revived. The prospects for the future are said to be much brighter, owing to the limitation of output to which reference has been made, and the development of markets, which should be much assisted by the judicious application of the funds obtained from the cess of a quarter of a pie per lb. charged from the 1st April 1903 on all tea exported from India. The exports of Indian tea by sea during the last three years are returned as follows:—

| | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom - - - - - | 166,171,556 | 159,014,075 | 152,895,529 |
| „ Australia - - - - | 10,438,984 | 8,575,039 | 5,795,484 |
| „ United States - - - - - | 1,765,529 | 1,080,293 | 2,671,942 |
| „ Canada - - - - - | 1,724,922 | 1,059,483 | 5,554,309 |
| „ Turkey in Asia - - - - - | 3,240,334 | 2,626,130 | 3,272,876 |
| „ Persia - - - - - | 2,429,140 | 2,530,546 | 3,254,035 |
| „ China - - - - - - - | 1,143,194 | 1,336,644 | 1,520,997 |
| „ Russia - - - - - | 772,495 | 1,624,580 | 3,967,836 |
| „ Other Countries - - - - | 2,619,336 | 1,946,670 | 2,792,835 |
| Total - - - | 190,332,258 | 179,793,460 | 181,725,843 |

The total exports of Indian tea in 1886–87 were $78\frac{3}{4}$ million lbs. only. During the year under report the exports to Belgium, Holland, Russia, Egypt, Natal, Abyssinia, and the United States increased considerably, while the increase in the case of Canada is very remarkable. There were also

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nearly 2 million lbs. of tea under the head of exports by land, but the greater part of this comes under the head of exports to Kashmir.

According to the British returns the tea imported into the United Kingdom for home consumption or re-export has come from China, India, and Ceylon in the following proportions :—

| In the Year | From China. | From India. | From Ceylon. |
|---|---|---|---|
| 1865 | 93 per cent. | 2 per cent. | 0 per cent. |
| 1875 | 86 „ | 13 „ | 0 „ |
| 1885 | 66 „ | 30 „ | 2 „ |
| 1895 | 16 „ | 46 „ | 32 „ |
| 1902 | 6 „ | 54 „ | 36 „ |
| 1903 | 7 „ | 55 „ | 31 „ |

COFFEE.

The area under coffee was all, with the exception of about 400 acres, in Southern India ; cultivation of coffee is, in fact, restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The area reported as under coffee at the end of 1902, with corresponding figures for the two preceding years, is given below ; but the figures are not of much value, as information is in some cases withheld by planters, especially in Madras :—

| —— | 1900. | 1901. | 1902. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Coorg | 68,596 | 65,732 | 62,381 |
| Madras | 40,931 | 36,722 | 34,950 |
| Mysore | 128,087 | 126,735 | 114,660 |
| Travancore and Cochin | 7,404 | 7,022 | 6,929 |
| Burma, Assam, &c. | 387 | 446 | 373 |
| Total | 245,405 | 236,657 | 219,293 |

London prices of coffee have fallen from 101s. per cwt. in 1894 to 47s. in 1900 and 60s. in 1902. There is no local market for coffee, and the competition of cheap Brazilian coffee has affected the price in the consuming markets. But owing to anticipations of a smaller supply there was an improvement in 1902. The same cause has given an impetus to the export trade, which may be taken as the best criterion of the progress of the coffee industry, very little coffee being consumed in India. The amount of exports is shown below :—

| —— | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom | 15,678,768 | 13,057,408 | 17,416,112 |
| „ France | 8,430,016 | 11,287,024 | 8,341,184 |
| „ other Countries | 3,491,388 | 4,220,272 | 4,419,184 |
| Total | 27,600,172 | 28,564,704 | 30,146,480 |

It seems not unlikely, arguing from the analogy of recent years, that the production in 1902 approached in all 40 million lbs. It certainly exceeded by a considerable amount the production of any year since 1895. The returns show that 28,148 persons were employed permanently, and 62,515 temporarily, on the coffee estates.

CINCHONA.

Cinchona cultivation, outside the Government plantations, appears from the returns to have declined in recent years. These returns are not very trustworthy, but they are to some extent confirmed by the fall in the amount of bark exported from Madras from $3\frac{1}{4}$ million lbs. in 1899–1900 to $1\frac{1}{2}$ million lbs. in 1902–03. But the export has varied very widely in earlier years.

AGRICULTURAL PRODUCE.

On the Government cinchona plantations of the Darjeeling district in Bengal 180 acres were planted during 1902–03. A severe and continued drought, beginning in October 1902, delayed planting at the new extension at Munsong, and it was not possible to complete the programme which had been proposed for the year. Improved methods of cultivation have been introduced, and the trees are in a vigorous condition. In the early part of the year the rainfall was exceptionally heavy. The trees in the permanent plantations numbered over 3 millions. The quantity of dry bark harvested on the plantations was 235,600 lbs., and the purchases of bark from private plantations amounted to 84,300 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 392,200 lbs. of quinine-yielding barks, producing 11,927 lbs. of sulphate of quinine, and 84,800 lbs. of mixed *succirubra* and hybrid barks, from which 4,343 lbs. of cinchona febrifuge were extracted. The issue of quinine rose to 10,950 lbs., and that of cinchona febrifuge to 4,505 lbs., owing chiefly to the increased demand from Government medical depôts; but there was also a larger demand for the febrifuge on the part of the general public. The quinine supplied to the public is sold at post offices in five-grain packets; the febrifuge is sold at the factory; but a large part of the issues are made to Government officers for dispensaries and medical depôts.

The season in the Madras Cinchona Gardens was not altogether favourable, the early part of the year being unusually wet, followed by abnormally dry weather. The year's crop amounted to 144,300 lbs. of bark, taken entirely from sickly or dying trees, besides 289,200 lbs. purchased from private plantations. The amount of bark worked up in the factory was 528,000 lbs. consisting in about equal proportions of grown and purchased bark, the former giving the larger percentage of yield. The produce was 15,711 lbs. of sulphate of quinine and 6,606 lbs. of cinchona febrifuge. The new machinery installed during the preceding year worked well, and has effected a considerable reduction in the cost of manufacture. From this factory are supplied the requirements of Madras, Bombay, the United Provinces, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore; the issues during the year were 13,179 lbs. of quinine and 3,113 lbs. of the febrifuge. The sale of quinine at post offices in the Madras Presidency showed a satisfactory increase in the year under report. Quinine was issued to local fund and municipal dispensaries at the rate of Rs. 16 per lb., and the febrifuge was sold to the public at the rate of Rs. 12 per lb.

JUTE.

In Bengal, where nearly the whole of the jute crop is grown, the season was not unfavourable, and about 80 per cent. of a normal out-turn is estimated to have been secured in the season 1902. The area under jute in the province is returned as 2,106,300 acres, or nearly 10 per cent. less than the normal area, which is stated as 2,339,100 acres. The total yield, in bales of 400 lbs., is estimated at $5\frac{1}{4}$ million bales in 1902, against $6\frac{1}{2}$ millions in 1901, and an average of $5\frac{1}{3}$ millions in each of the last five years. It has since been discovered, however, that the estimates from which these figures are taken understate the area in the Mymensingh district by about 150,000 acres. The fluctuations of the jute export trade during recent years have been as follows:—

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | Value. |
| | Cwts. | £ | £ | £ |
| 1883–84 | 7,018,000 | 3,062,000 | 890,000 | 3,952,000 |
| 1891–92 | 8,532,000 | 4,566,000 | 1,675,000 | 6,241,000 |
| 1897–98 | 15,023,000 | 6,754,000 | 3,954,000 | 10,708,000 |
| 1898–99 | 9,865,000 | 4,628,000 | 3,866,000 | 8,494,000 |
| 1900–01 | 12,415,000 | 7,245,000 | 5,243,000 | 12,488,000 |
| 1901–02 | 14,755,000 | 7,865,000 | 5,807,000 | 13,672,000 |
| 1902–03 | 13,036,000 | 7,418,000 | 6,013,000 | 13,431,000 |

Of the raw jute exports in 1902–03, nearly 43 per cent. went to the United Kingdom, 19 per cent. to Germany, nearly 14 per cent. to the United States, and nearly 13 per cent. to France; of the manufactured jute, 10 per

AGRICULTURAL PRODUCE.

cent. went to the United Kingdom, 35 per cent. to the United States, and 9 per cent. to Australia.

INDIGO.

The area under indigo in the four indigo growing provinces, as reported, is given in the margin. It will be seen that there was again a very general fall. To the bad prospects of the industry caused by the competition of synthetic indigo, there was added a further cause of contraction, in the unfavourable season. In Bengal the out-turn is estimated to have been only 50 per cent. of a normal crop for the province as a whole. In the United Provinces the estimate is somewhat higher. In Madras, though the village cultivation of the crop was on a very contracted scale, the yield was fairly good. The out-turn for the four provinces together is given as 73,900 cwt., compared with 112,800 cwt. in 1901 and an average of 162,000 cwt. for each of the preceding five years. The total exports of recent years have been :—

| — | Average of preceding Five Years. | 1901. | 1902. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Bengal - - | 483,700 | 311,200 | 253,500 |
| United Provinces - | 309,900 | 169,000 | 93,200 |
| Punjab - - - | 102,900 | 71,600 | 42,000 |
| Madras - - | 303,500 | 239,400 | 186,000 |
| Total - - | 1,200,000 | 791,200 | 574,700 |

| | Cwts. | | £ | |
|---|---|---|---|---|
| 1888–89 - - - - | 142,000 | valued at | 2,633,000 | Exports by sea, besides a small quantity annually exported across the land frontiers of India. |
| 1890–91 - - - | 118,000 | „ | 2,049,000 | |
| 1894–95 - - - | 166,000 | „ | 3,164,000 | |
| 1895–96 - - - | 187,000 | „ | 3,570,000 | |
| 1896–97 - - - | 170,000 | „ | 2,914,000 | |
| 1897–98 - - - | 134,000 | „ | 2,038,000 | |
| 1898–99 - - - | 135,000 | „ | 1,980,000 | |
| 1899–1900 - - - | 111,000 | „ | 1,795,000 | |
| 1900–01 - - - | 102,000 | „ | 1,424,000 | |
| 1901–02 - - - | 90,000 | „ | 1,235,000 | |
| 1902–03 - - - | 65,000 | „ | 804,000 | |

SUGAR.

The area under sugar in India is estimated as follows for the provinces mentioned :—

| — | Area in Acres. | | | Out-turn in Tons. | |
|---|---|---|---|---|---|
| | Average of Five Preceding Years. | 1901-02. | 1902–03. | 1901–02. | 1902–03. |
| Bengal - - - | 849,000* | 661,200 | 664,700 | 676,400 | 672,700 |
| United Provinces - - | 1,212,000 | 1,228,700 | 1,159,800 | 976,200 | 904,100 |
| Punjab and North-West Frontier Province. | 363,000 | 376,200 | 336,100 | 435,700 | 367,500 |
| Madras - - - | 52,000 | 51,100 | 46,100 | 1,094,000 | 934,000 |

* Three years only.

Besides these amounts, however, there is a certain amount of sugar cultivation in most of the other provinces, and the total area under sugar in 1901–02 is given as nearly $2\frac{2}{3}$ millions of acres. It is estimated that the annual yield from this area amounts to three millions of tons, or possibly more, of unrefined sugar. In the year under report the crop was considerably inferior to that of 1901–02, owing to deficiency of water at the time of planting and to the injury of standing crops by frost. The imports of sugar, including confectionery and molasses, during recent years are given as follows, the figures representing for the most part refined sugar :—

| — | 1896–97. | 1898–99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| From Austria-Hungary | 5,775 | 53,187 | 38,891 | 66,065 | 112,897 | 44,401 |
| „ Germany - - | 37,940 | 20,698 | 3,026 | 20,100 | 28,857 | 7,284 |
| „ Mauritius - | 74,442 | 105,205 | 88,667 | 124,476 | 109,158 | 118,309 |
| „ China - - | 6,965 | 9,284 | 15,850 | 24,372 | 9,138 | 28,430 |
| „ Java - - | 4,873 | 8,125 | 12,909 | 11,262 | 16,033 | 28,683 |
| „ other Countries - | 4,125 | 6,776 | 8,700 | 17,565 | 21,654 | 74,686 |
| Total - | 134,120 | 203,875 | 168,043 | 263,840 | 297,737 | 273,110 |

The legislation under which countervailing duties were imposed on bounty-fed sugar has been noticed in a former chapter under the head of "Customs." AGRICULTURAL PRODUCE.

## CIVIL VETERINARY DEPARTMENT.

The improvement of the breeds of horses, ponies, mules, and cattle, the prevention of horse and cattle disease, and veterinary instruction, are in charge of the Civil Veterinary Department, aided by a considerable number of veterinary assistants who are being organised into subordinate veterinary establishments. Operations are carried on throughout India, but chiefly in Northern India, which is most favourable for horse-breeding; their objects are, on the one hand, the provision of remounts and mules for military purposes, and, on the other, the preservation and improvement of native breeds of horses and cattle. For the first of these objects the Government of India imports and maintains horse and donkey stallions, and registers are kept of mares suitable for producing useful remounts. For the second object stallions are kept by provincial governments, local authorities, and private individuals; investigations into cattle and equine diseases are carried on, both locally and at the Imperial Bacteriological Laboratory at Muktesar; and numerous veterinary dispensaries are maintained by the provincial governments. The following paragraphs give some particulars for the year under various heads:— HORSE-BREEDING.

Horse-breeding is carried on chiefly in the Punjab, the United Provinces, and Baluchistan. In addition to the 349 horse and 18 pony stallions maintained by the Government, there were in the year 1902–03 some 57 horse stallions owned by district boards, chiefly in the United Provinces, and 152 pony stallions, of which the greater part are in the Punjab. These covered more than 11,000 mares, the number of the produce being reported as 2,831; but the result of the covering is unknown in a considerable proportion of the cases. Less attention is given by the local authorities to mule-breeding, and the number of district donkey stallions was only 31. The number maintained by the Government, for breeding mules for military purposes, was 492. There was, however, a good increase in the number of donkey mares covered by the district donkey stallions, and it is hoped that this may have a good effect in the course of a few years on the indigenous breed of donkeys. Horse and mule breeding.

With a view to improve native breeds of cattle, the local authorities in many provinces procure young bulls of indigenous breeds, and after rearing them well turn them out among the herds. Proposals have been made, and were under consideration at the end of the year, for the establishment of bull-rearing runs throughout India, by which it is believed that the recognised breeds could be improved or maintained. At present, the most important centre of cattle-breeding is the Hissar Cattle Farm, which was taken over by the Civil Veterinary Department for a seven years' period in 1898–99. The farm contains 18 herd bulls and 779 cows, selected with great care as good specimens of the Harriana and Nagore breeds. Seven bulls only were supplied to the districts during the year; but the young stock which is coming on is reported to be very satisfactory, and the first batch of 80 bull calves selected from the best herds are well grown and true to type, and will be of immense value when issued to the districts containing Harriana and Nagore cattle. Under the scheme laid down for the working of the farm, it will take two years before all demands can be met. At the end of that time, the farm will be able to supply fifty to one hundred true bred bulls annually to the districts at prices ranging from £10 to £13. Mule and donkey-breeding operations were also carried on at the farm; and the cultivation has been greatly improved. Though no animals but those which were supernumerary were sold during the year, the finances of the farm showed a small profit. Cattle-breeding.

Reported cases of glanders and farcy were exceptionally few during the year. An outbreak which occurred in Kashmir was promptly suppressed, and arrangements were made for the inspection of all animals coming from the State. The cases reported there numbered 21; of the remaining 79 cases, 66 were in Bengal. Inspections of horse-boxes and cattle-trucks were more frequent, and are reported to have been productive of much good. Horse and cattle disease.

HORSE-BREEDING.

Among cattle, a considerable number of deaths from rinderpest were reported in Bengal, Burma and Madras, and great progress was made with preventive inoculation in each province. This practice is being introduced whenever possible, and it is generally found that villagers have no objection to it when its advantages are explained to them. An equally satisfactory account is given of the extension of inoculation against anthrax. Except in Burma and the Punjab, where subordinate veterinary establishments are in existence, there are no trustworthy statistics of deaths from the chief cattle diseases. When other provinces have a similar organisation, a proper system of registration will become possible. Veterinary dispensaries, attended by veterinary assistants, have been established in most provinces, but there are still no dispensaries of the kind in Madras. The number of veterinary assistants in all provinces was 322. At the Imperial Bacteriological Laboratory at Muktesar, as elsewhere throughout India, experiments on rinderpest and other diseases were in progress, and a large quantity of serum for inoculations was prepared. A valuable note by two officers of the Veterinary Department, published during the year, established the existence of the "dourine" disease among horses in India.

Veterinary instruction.

The total number of students who passed out from the various veterinary colleges and schools was 101, of whom 32 had gone through a three years' course, the remainder having taken the salutri's two-year course at Bombay or having passed through the Ajmere College. The question of amalgamating the latter with the Punjab College was under consideration. Arrangements were completed during the year for the establishment of a veterinary college in the Madras Presidency. There is a great demand for veterinary graduates and assistants, and good men find no difficulty in getting suitable employment. But this is not the case with men who have only gone through a two-years' course. The amalgamation of the Punjab and Ajmere Colleges would involve the disappearance of the two-years' course in force in the latter.

## MINES AND MINERAL RESOURCES.

MINERAL RESOURCES.

In the development of Indian mineral resources recent years show a decided advance, although no new kinds of mineral wealth have been discovered, with the exception of the deposits of manganese ore on the east coast of Madras and in the Central Provinces, the development of which may be said to have been begun in 1893. Putting aside salt, the production of which is dealt with elsewhere, the chief mining resources of India, with the estimated value of the output in 1902, may be stated as follows:—Gold, £1,970,000; coal, £1,460,000; clay, £280,000; petroleum, £220,000; saltpetre, £190,000; and mica and manganese, about £27,000. Other mineral products which exist in India in more or less workable quantities include rubies, tin ore, jade, copper ore, alum, gypsum, and plumbago.

COAL.

The output of coal in India for the last three years is contrasted below with the amount produced 10 years ago. The figures are taken from the Financial and Commercial Statistics published by the Government of India:—

| | Coal produced in | | | |
|---|---|---|---|---|
| | 1892. | 1897. | 1901. | 1902. |
| | Tons. | Tons. | Tons. | Tons. |
| Bengal | 1,920,000 | 3,142,000 | 5,488,000 | 6,259,000 |
| Central Provinces | 132,000 | 132,000 | 192,000 | 197,000 |
| Assam | 164,000 | 186,000 | 254,000 | 221,000 |
| Punjab | 66,000 | 93,000 | 68,000 | 55,000 |
| Baluchistan | 13,000 | 12,000 | 25,000 | 34,000 |
| Burma | 4,000 | 11,000 | 12,000 | 13,000 |
| Rewah State | 89,000 | 125,000 | 164,000 | 172,000 |
| Nizam's Dominions | 150,000 | 365,000 | 421,000 | 456,000 |
| Rajputana (Bikanir) | Nil | Nil | 12,000 | 17,000 |
| Total | 2,538,000 | 4,066,000 | 6,636,000 | 7,424,000 |

MINERAL RESOURCES.

At the end of 1902 there were 329 coal mines in operation, of which 306 were in Bengal. These include some very small mines. There are some important mines in Assam, and two, including the Government mine at Warora, in the Central Provinces; the largest of all the mines are the East India Railway Company's mines near Giridhi, which produced 614,000 tons, and the Singareni mine in Hyderabad, which produced 455,000 tons of coal during the year. The number of persons employed in the coal-mining industry in 1902 was 98,300, of whom 27,200 were women and 4,600 children. A great expansion of the coal-mining industry has taken place within the last few years, and the imports of coal, coke, and patent fuel, which amounted to 258,000 tons only in 1902, bear an insignificant proportion to the consumption, and are, in fact, overbalanced by the exports (430,000 tons in 1902). Much the greater part of the coal produced is consumed in the country, and the extension of the market for Indian coal depends on the development of the industrial resources in India. The fuel is abundant and widely distributed, and can be raised for Rs. 2 per ton in Bengal. Its price at Calcutta varied during 1902 from Rs. 6½ to Rs. 7½ per ton, according to quality; quotations for 1903 were about a rupee per ton lower. The Indian railways used 2,120,000 tons of Indian coal in 1902, against 1,970,000 in 1901; and only 2 per cent. of the coal used by them came from other countries. Bengal sent 556,000 tons of coal by sea to Bombay, this being considerably less than in the preceding year.

IRON.

The iron ore produced in India in 1902 is stated to have amounted to 85,200 tons, a larger figure than that of any previous year, but insignificant in comparison with the future possibilities of this industry. Almost the whole of the output comes from Raniganj in Bengal, near the coalfields. The question of the utilisation of the coal and iron supply of India in the establishment of a steel industry has received much attention of late. At present the only iron works in India are those at Barrakur, in Bengal, the operations of which are being extended by the laying down of a steel-manufacturing plant. The well-known iron deposits at Chanda and Jubbulpore in the Central Provinces are, however, being prospected, and there is a possibility that the Indian iron industry will receive further development at the hands of another company. There is also a small local iron industry in other parts of Bengal and in the Central Provinces, but as now produced the iron is unable to compete for cheapness with imported metal, although it is of good quality.

MINERAL OIL.

The production of crude petroleum from the principal oilfields has been returned thus :—

| Produced in | Average of Three Years 1896-98. | 1899. | 1900. | 1901. | 1902. |
|---|---|---|---|---|---|
| | Gallons. | Gallons. | Gallons. | Gallons. | Gallons. |
| Burma - - | 17,369,000 | 32,309,000 | 36,974,000 | 49,442,000 | 54,849,000 |
| Assam - - - | 336,000 | 624,000 | 753,000 | 631,000 | 1,757,000 |
| Punjab - - | 2,000 | 1,000 | 2,000 | 2,000 | 2,000 |
| Total - - | 17,707,000 | 32,934,000 | 37,729,000 | 50,075,000 | 56,608,000 |

The output of oil in the Yenangyaung and Yenangyat oilfields in Upper Burma continues to increase. The new Singu oilfield in the Myingyan district has turned out to be very promising, though no oil was exported from it during the year, pending the arrival of a distilling plant. In Lower Burma very little oil was taken from the Akyab and Kyaukpyu oilfields. There is a noteworthy increase in the output of Assam oil. Although the production of petroleum has expanded very largely, it is still insufficient for the requirements of the Indian market, which are met by the importation of oil, for the most part from Russia. Imports of American oil, which had shown a rapid decline, recovered considerably in 1902–03. Particulars for

MINERAL RESOURCES.

the last four years are shown below; but it must be remembered, in comparing these quantities with those given in the table above, that the Burma output is given in crude oil, which may be taken to represent only about half the quantity of kerosene.

| | 1899–1900. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|
| Kerosene: | Gallons. | Gallons. | Gallons. | Gallons. |
| From United States - | 12,732,000 | 5,102,000 | 5,768,000 | 9,229,000 |
| „ Russia - - | 57,658,000 | 67,351,000 | 84,478,000 | 71,125,000 |
| „ elsewhere - - | 50,000 | 149,000 | 1,221,000 | 1,097,000 |
| Other sorts - - | 4,519,000 | 8,187,000 | 7,419,000 | 7,422,000 |
| Total - - | 74,959,000 | 80,789,000 | 98,886,000 | 88,873,000 |

The value of the oil imported during 1902–03 was about £2,310,000, and that of the locally-produced crude oil is estimated at about £220,000 for the year 1902.

GOLD.

| | Oz. |
|---|---|
| 1896 - - | 323,500 |
| 1897 - - | 390,600 |
| 1898 - - | 418,900 |
| 1899 - - | 456,000 |
| 1900 - - | 513,000 |
| 1901 - | 532,100 |
| 1902 - - | 527,200 |

The out-turn of the Indian gold mines in 1902 was not quite so large as in 1901, though above the output of previous years. The industry is chiefly dependent on the quartz reefs at Kolar. Fifteen companies are at work, of which five are paying dividends and five others producing gold. The Cauvery electric scheme, for providing 4,000 H.P. from the falls in that river, was completed during 1902. A scheme for a water supply was being considered.

# CHAPTER XI.

## PUBLIC WORKS.

PUBLIC WORKS.

General.

During the year under review the Public Works Department was represented in the Council of the Governor-General by Mr. A. T. Arundel, C.S.I. The post of Public Works Secretary was held throughout the year by Mr. A. Brereton.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength slightly above that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1902 and 1901 :—

| — | Government of India List. | Government of Madras List. | Government of Bombay List. | Total. |
|---|---|---|---|---|
| Royal Engineer officers | 57 | 5 | 3 | 65 |
| Other military officers | 8 | — | — | 8 |
| *Civil Engineers:* | | | | |
| Appointed from Europe | 308 | 56 | 44 | 408 |
| Europeans appointed in India | 144 | 3 | 6 | 153 |
| Natives appointed in India | 71 | 22 | 26 | 119 |
| **Total for 1902** | 588 | 86 | 79 | 753 |
| **Total for 1901** | 582 | 84 | 83 | 749 |

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three Presidencies were as follows :—

| — | India. | Madras. | Bombay. | Total. |
|---|---|---|---|---|
| Europeans | 181 | 54 | 23 | 258 |
| Natives | 348 | 123 | 176 | 647 |
| Total | 529 | 177 | 199 | 905 |

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the Provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different Provincial services, controlled by the local

PUBLIC WORKS

administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1902–03 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

| | £ |
|---|---|
| Railways | 20,133,900 |
| Irrigation | 2,768,990 |
| Buildings and Roads | 486,941 |
| TOTAL | £23,389,831 |

EXPENDITURE.

| | Charged to Revenue. | Not Charged to Revenue. |
|---|---|---|
| *Railways :* | £ | £ |
| Construction | 54,659 | 4,564,001 |
| On Revenue Account | 19,904,951 | — |
| *Irrigation :* | | |
| Construction | 115,922 | 564,191 |
| Ditto from Famine Relief Grant | 94,742 | — |
| On Revenue Account | 2,459,322 | — |
| *Buildings and Roads :* | | |
| Military Works | 1,096,669 | — |
| Civil Works | 4,145,779 | — |
| TOTAL £ | 27,872,044 | 5,128,192 |

The expenditure charged against revenue includes the following items of "Interest on Debt" :—

| | £ |
|---|---|
| Railways | 4,295,369 |
| Irrigation | 969,105 |

On the 31st of March 1903, £117,878,719 of permanent public debt had been incurred on account of railways, and £24,830,745 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £2,999,218, of which £1,268,582 is in respect of the Great Indian Peninsula Railway, purchased in 1900.

## RAILWAYS.



A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1903 were prepared, the figures must be accepted as only approximately correct.

Financial result to the State.

In the financial year 1902–03 there was a surplus of revenue over expenditure amounting to £228,948. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1902–03 :—

| — | Imperial. | Provincial and Local. | England (sterling converted at £1 = Rs. 15). | TOTAL. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts). | 19,109,403 | 28,023 | 230 | 19,137,656 |
| Guaranteed companies—(Net traffic receipts). | 946,182 | — | — | 946,182 |
| Subsidised companies—(Repayment of advances of interest). | 32,192 | — | 17,870 | 50,062 |
| TOTAL - - | 20,087,777 | 28,023 | 18,100 | 20,133,900 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses - - | 9,810,888 | 16,323 | — | 9,827,211 |
| Interest on debt - - | 3,151,866 | — | 1,143,504 | 4,295,370 |
| Annuities in the purchase of railways. | — | — | 2,999,218 | 2,999,218 |
| Interest chargeable against companies on advances. | 171,575 | 3,293 | 218,884 | 393,752 |
| Interest on capital deposited by companies. | 17,174 | 3,090 | 1,150,225 | 1,170,489 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision. | 82,558 | — | — | 82,558 |
| Interest - - - - | 8,326 | — | 1,026,892 | 1,035,218 |
| Subsidised companies— | | | | |
| Land, &c. - - - - | 42,073 | 140 | — | 42,213 |
| Miscellaneous railway expenditure - | 52,640 | 6,283 | — | 58,923 |
| TOTAL - - | 13,337,100 | 29,129 | 6,538,723 | 19,904,952 |
| | | Net gain - - £ | | 228,948 |

In the figures of expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind-Punjab and Delhi, and Great Indian Peninsula railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical results of working.

2. The statistical results of working of the various classes of railways during 1903 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·59 per cent. of the total capital outlay on open lines, including steam-boat service and suspense items, but

RAILWAYS. excluding other indirect charges, against 5·41 per cent. in the previous year:—

| Class. | Length of Line Open on the 31st December 1903. | Total Capital Outlay on Open Lines to the 31st December, including Steamboat and Suspense. | Total Number of Passengers Carried. | Total Weight of Goods Carried. | Gross Earnings, including Steam-boat Service. | Working Expenses, including Steam-boat Service. | Net Earnings, including Steam-boat Service. | Percentage of net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *5′ 6″ Gauge.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by companies | 6,792·17 | 82,425,805 | 54,272,667 | 19,522,179 | 9,787,768 | 4,288,540 | 5,499,228 | |
| State lines worked by the State | 4,720·37 | 49,971,840 | 38,125,436 | 9,695,958 | 4,937,120 | 2,410,020 | 2,527,100 | |
| Companies' lines guaranteed under old contracts. | 1,365·36 | 17,447,267 | 28,006,951 | 2,868,519 | 1,947,000 | 1,022,200 | 924,800 | |
| Companies' lines guaranteed under modern contracts. | 32·04 | 189,467 | 221,100 | 51,100 | 17,600 | 10,133 | 7,467 | |
| Assisted companies' lines | 843·55 | 3,674,735 | 4,946,921 | 746,542 | 378,304 | 176,811 | 201,493 | |
| Lines owned by Native States and worked by companies. | 709·93 | 4,741,204 | 3,124,746 | 1,076,426 | 341,533 | 139,255 | 202,278 | |
| Lines owned by Native States and worked by State railway agency. | 201·63 | 786,720 | 1,972,599 | 335,846 | 83,000 | 45,667 | 37,333 | |
| TOTAL FOR 1903 | 14,665·05 | 159,237,038 | 130,670,420 | 34,226,570 | 17,492,325 | 8,092,626 | 9,399,699 | 5·90 |
| TOTAL FOR 1902 (*a*) | 14,310·24 | 155,158,774 | 122,886,876 | 33,262,560 | 16,443,208 | 7,885,281 | 8,557,927 | 5·51 |
| *3′ 3¾″ Gauge.* | | | | | | | | |
| State lines worked by companies | 7,306·38 | 42,045,270 | 51,680,758 | 8,572,232 | 4,045,935 | 2,194,562 | 1,851,373 | |
| States lines worked by the State | 619·18 | 4,266,700 | 4,904,400 | 984,120 | 510,687 | 265,060 | 245,627 | |
| Companies' lines guaranteed under modern contracts. | 59·37 | 185,027 | 420,300 | 52,820 | 16,440 | 8,867 | 7,573 | |
| District Boards' lines | 99·46 | 216,333 | 1,437,000 | 161,000 | 26,533 | 12,267 | 14,266 | |
| Assisted companies' lines | 1,307·02 | 6,113,097 | 13,712,046 | 2,221,127 | 934,988 | 399,692 | 535,296 | |
| Lines owned by Native States and worked by companies. | 724·78 | 3,009,531 | 3,448,263 | 928,790 | 226,352 | 127,509 | 98,843 | |
| Lines owned and worked by Native States. | 1,223·04 | 2,786,611 | 2,930,217 | 547,620 | 283,553 | 141,419 | 142,134 | |
| Lines in foreign territory | 73·61 | 1,004,455 | 707,291 | 242,365 | 33,534 | 18,333 | 15,201 | |
| TOTAL FOR 1903 | 11,412·84 | 59,627,124 | 79,240,275 | 13,710,074 | 6,078,022 | 3,167,709 | 2,910,313 | 4·88 |
| TOTAL FOR 1902 (*a*) | 10,900·15 | 55,645,950 | 70,269,792 | 11,912,743 | 6,000,287 | 3,142,295 | 2,857,992 | 5·14 |
| *Special (2′ 6″ and 2′ 0″) Gauges.* | | | | | | | | |
| State lines worked by companies | 130·74 | 343,333 | (*b*) | (*b*) | 7,600 | 4,053 | 3,547 | |
| State lines worked by the State | 30·25 | 60,330 | 152,586 | 11,756 | 6,044 | 4,922 | 1,122 | |
| Assisted companies' lines | 309·94 | 1,659,332 | 2,528,215 | 173,598 | 123,604 | 71,597 | 52,007 | |
| Lines owned by Native States and worked by companies. | 276·19 | 485,448 | 826,968 | 103,050 | 31,654 | 28,153 | 3,501 | |
| Lines owned by Native States and worked by State railway agency. | 33·60 | 98,592 | 150,000 | 96,760 | 9,173 | 3,707 | 5,466 | |
| Lines owned and worked by Native States. | 94·36 | 185,267 | 256,292 | 18,527 | 19,677 | 10,800 | 8,877 | |
| TOTAL FOR 1903 (*c*) | 875·08 | 2,832,302 | 3,914,061 | 403,691 | 197,752 | 123,232 | 74,520 | 2·63(*e*) |
| TOTAL FOR 1902 (*a*), (*c*) and (*d*). | 688·51 | 1,481,396 | 3,491,819 | 359,690 | 174,617 | 109,263 | 65,354 | 4·41 |
| TOTAL OF ALL RAILWAYS FOR 1903 (*c*). | 26,952·97 | 221,696,464 | 213,824,756 | 48,340,335 | 23,768,099 | 11,383,567 | 12,384,532 | 5·59 |
| TOTAL OF ALL RAILWAYS FOR 1902 (*a*), (*c*) and (*d*). | 25,898·90 | 212,286,120 | 196,648,487 | 45,534,993 | 22,618,112 | 11,136,839 | 11,481,273 | 5·41 |

It will be observed that, with an increase of 1,054·07 (*f*) miles or 4·07 per cent. in the open mileage, as compared with 1902, the gross earnings and working expenses show increases of £1,149,987 or 5·08 per cent., and of £246,728 or 2·22 per cent., respectively, resulting in an increase of £903,259 or 7·87 per cent. in the net earnings.

There was an increase of 17,176,269 in the number of passengers and of 2,805,342 tons in the weight of goods carried as compared with the previous year.

(*a*) As corrected from later information.
(*b*) Included with the 5′ 6″ gauge.
(*c*) Excluding the Thaton-Duyinzaik Light Railway.
(*d*) Excluding the Parlakimedi Light Railway.
(*e*) The decrease in this percentage as compared with that of 1902 is due chiefly to the inclusion of the capital outlay of £946,667 on the Kalka-Simla Railway, which was opened to traffic on the 9th November 1903. Excluding the transactions of this line, the percentage of the total net earnings of 2′ 6″ and 2′ 0″ gauge railways on capital outlay is 3·91.
(*f*) The difference between this figure and the total length shown as opened during 1903 in paragraph 4 is due to the inclusion of the Parlakimedi Light Railway, 24·68 miles, in the year under review and to minor corrections in the mileage of open lines.

3. The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :— RAILWAYS. Guaranteed railway transactions.

| RAILWAYS. | Total Capital Outlay. | Net Revenue. | Guaranteed Interest. | Interest in Excess of Revenue. | Net Revenue in Excess of Interest. | Surplus Profits. |
|---|---|---|---|---|---|---|
| HALF-YEAR ENDED THE 30TH JUNE 1903. | £ | £ | £ | £ | £ | £ |
| Bombay, Baroda, and Central India. | 10,896,750 | 361,215 | 239,485 | — | 121,730 | 123,110 |
| Madras - - - | 12,276,655 | 295,695 | 283,619 | — | 12,076 | (a)12,822 |
| Total - | 23,173,405 | 656,910 | 523,104 | — | 133,806 | 135,932 |
| HALF-YEAR ENDED THE 31ST DECEMBER 1903. | | | | | | |
| Bombay, Baroda, and Central India. | 10,938,644 | 194,072 | 241,876 | 47,804 | — | — |
| Madras - | 12,296,544 | 210,174 | 278,977 | 68,803 | — | — |
| Total - | 23,235,188 | 404,246 | 520,853 | 116,607 | — | — |
| Total for the year 1903 | 23,235,188 | 1,061,156 | 1,043,957 | — | 17,199 | 135,932 |
| Total for the year 1902. | 22,937,198 | 1,061,204 | 1,032,840 | — | 28,364 | (a)122,878 |

(a) Passed provisionally.

4. The total railway mileage on each gauge opened during the year and the sections opened were as follows :— Mileage opened.

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| *5′ 6″ Gauge—* | | | |
| Bengal Nagpur— | | | |
| Midnapur to Bhojudih - - - - | 114·50 | | |
| Bhojudih to Bhaga - - - - - | 6·66 | | |
| Bhaga to Malkera - - - - - | 8·79 | | |
| Southern section of the Malkera-Katrasgarh cross connection. | 0·71 | | |
| Ramkanali to Chaurashi - - - - | 8·16 | | |
| Bhowra siding - - - - - | 2·50 | | |
| | | 141·32 | |
| Bombay, Baroda, and Central India— | | | |
| Godhra to Baroda - - - - - | — | 44·00 | |
| Eastern Bengal— | | | |
| Extension of Chitpore terminus - - - | — | 0·68 | |
| East Indian— | | | |
| Katrasgarh to Khanoodih - - - - | 7·23 | | |
| Jheria to Dhanbaid - - - - - | 3·79 | | |
| Northern section of the Malkera-Katrasgarh cross connection. | 0·67 | | |
| | | 11·69 | |
| Indian Midland— | | | |
| Ait to Kunch - - - - - - | — | 8·85 | |
| Madras— | | | |
| Tellicherry to Cannanore - - - - | — | 11·82 | |
| North Western State— | | | |
| Malakwal to Sargoda - - - - - | — | 46·25 | |
| Oudh and Rohilkhand State— | | | |
| Partabgarh to Siwait - - - - - | 25·00 | | |
| Chilbila to Sultanpur - - - - - | 22·00 | | |
| Balamau to Madhoganj - - - - - | 14·47 | | |
| | | 61·47 | |
| | | | 326·08 |
| Carried over - - - - | | | 326·08 |

| Railways. | | Miles. | Miles. | Miles. |
|---|---|---|---|---|
| | Brought forward - | — | — | 326·08 |
| | *3′ 3⅜″ Gauge—* | | | |
| | Ahmedabad-Dholka— | | | |
| | Sabarmati to Dholka - - - - - | — | 33·50 | |
| | Assam-Bengal— | | | |
| | Lakwa to Tinsukia - - - - - | 54·47 | | |
| | Damchara to Lumding - - - - | 100·74 | | |
| | | | 155·21 | |
| | Noakhali (Bengal)— | | | |
| | Laksam to Noakhali - - - - - | 30·46 | | |
| | Noakhali to Sahibghatta - - - - | 4·44 | | |
| | | | 34·90 | |
| | Bengal and North-Western, Company's section— | | | |
| | Phephna to Ghazipur Ghat - - - - | 31·16 | | |
| | Azamgarh to Shahganj - - - - | 34·81 | | |
| | | | 65·97 | |
| | Bengal Dooars— | | | |
| | Chalsa to Madarihat - - - - - | — | 38·80 | |
| | Burma— | | | |
| | Hsipaw to Lashio - - - - - | 50·94 | | |
| | Letpadan to Tharrawa - - - - - | 23·07 | | |
| | Henzada to Henzada Shore - - - - | 2·46 | | |
| | | | 76·47 | |
| | Vijapur-Kalol-Kadi— | | | |
| | Kalol to Kadi - - - - - - - | — | 12·20 | |
| | Rohilkund and Kumaon, Lucknow-Bareilly section— | | | |
| | Dudwa to Chandanchowki - - - - | — | 5·87 | |
| | Tinnevelly-Quilon (Travancore) (British section)— | | | |
| | Kallidaikurichi to Shencottah - - - - | — | 30·88 | |
| | Tanjore District Board— | | | |
| | Pattukkottai to Arantangi - - - - - | — | 28·35 | |
| | | | | 482·15 |
| | *Special (2′ 6″) Gauge—* | | | |
| | Bukhtiarpur-Behar Light— | | | |
| | Bukhtiarpur to Behar - - - - - - | — | 18·50 | |
| | Gaekwar's Dhaboi— | | | |
| | Padhra to Mhoba - - - - - - | — | 9·20 | |
| | Bengal-Nagpur— | | | |
| | Gondia to Neinpur - - - - - - | — | 74·50 | |
| | Kalka-Simla— | | | |
| | Kalka to Simla - - - - - - | — | 59·44 | |
| | North-Western State— | | | |
| | Kohat to Thal - - - - - - - | — | 62·03 | |
| | | | | 223·67 |
| | TOTAL - - - - | | | 1,031·90 |

Mileage sanctioned.

5. The additional lengths sanctioned for construction were :—

| | | Miles. | Miles. | Miles. |
|---|---|---|---|---|
| | *5′ 6″ Gauge—* | | | |
| | Bengal-Nagpur— | | | |
| | Jamadhoba to Balliary - - - - - | — | 5·50 | |
| | Eastern Bengal State— | | | |
| | Moorshidabad to Jeaganj - - - - | 6·00 | | |
| | Jeaganj to Lalgola* - - - - - | 16·50 | | |
| | | | 22·50 | |
| | East Indian— | | | |
| | Mile 170¾ on the Jheria branch to Chandore - - | 4·16 | | |
| | Ondal to Sainthia or Ahmedpur - - - | 43·62† | | |
| | | | 47·78 | |
| | Carried over - - | | 75·78 | |

* With a siding to a ghat station on the Ganges and a small flotilla.
† The mileage here given is to Sainthia.

| | Miles. | Miles. | Miles. | Railways. |
|---|---|---|---|---|
| Brought forward - | | 75·78 | | |
| Madras— | | | | |
| Salem to Attur - - - - - | — | 36·06 | | |
| North-Western State— | | | | |
| Jech Doab extension, Sargoda to Shorkot Road - | 103·00 | | | |
| Lower Sind extension, Hyderabad to Badin - - | 61·00 | | | |
| Southern Punjab Railway, Ludhiana *viâ* Ferozepore to McLeodganj - - - - - | 162·90 | | | |
| | | 326·90 | | |
| Oudh and Rohilkhand State— | | | | |
| Hapur to Meerut - - - - - | 19·50 | | | |
| Phaphamau to Zafarabad - - - - | 57·50 | | | |
| | | 77·00 | | |
| | | | 515·74 | |
| 3′ 3⅜″ *Gauge*— | | | | |
| Bengal and North-Western— | | | | |
| Company's Section— | | | | |
| Kopaganj to Dhorighat - - - - | 21·70 | | | |
| Uska Bazar to Tulsipur - - - - | 53·54 | | | |
| Gaisanri to Jarwa - - - - - | 12·56 | | | |
| Gorakhpur to Bagaha - - - - | 60·94 | | | |
| | | 148·74 | | |
| Tirhoot Section— | | | | |
| Mansi to Baptiahi - - - - - | 60·01 | | | |
| Sihursa to Murliganj - - - - | 18·61 | | | |
| Bairagnia to Bikna Thori - - - - | 79·55 | | | |
| Bettiah to Bagaha - - - - | 49·35 | | | |
| | | 207·52 | | |
| Burma— | | | | |
| Pegu to Martaban* - - - - - | — | 121·27 | | |
| Eastern Bengal State— | | | | |
| Kaunia to Bonarpara - - - - - | — | 44·25 | | |
| Nilgiri— | | | | |
| Coonoor to Ootacamund - - - - - | — | 11·50 | | |
| Rohilkund and Kumaon— | | | | |
| Company's Section— | | | | |
| Bareilly to Soron - - - - - | 56·00 | | | |
| Moradabad to Ramnagar - - - - | 47·00 | | | |
| Lalkua to Kashipur - - - - | 45·00 | | | |
| | | 148·00 | | |
| | | | 681·28 | |
| *Special* (2′ 6″) *Gauge*— | | | | |
| Baraset-Basirhat— | | | | |
| Baraset to Basirhat - - - - - | — | 26·00 | | |
| Cutch— | | | | |
| Anjar to Tuna - - - - - - | — | 11·86 | | |
| Gaekwar's Dabhoi— | | | | |
| Mobha to Kanjat - - - - - | — | 6·50 | | |
| North-Western State— | | | | |
| Jullundur to Sultanpur† - - - - | — | 28·82 | | |
| Tarakeshwar-Magra— | | | | |
| Magra to Tribeni - - - - - | — | 2·15 | | |
| | | | 75·33 | |
| Total - - - | — | — | 1,272·35 | |

* With steam ferry to connect with the port of Moulmein.
† Question of gauge not yet settled.

RAILWAYS.

Mileage under construction.

6. The total mileage under construction or sanctioned for construction at the close of the year, *i.e.*, on the 31st December 1903, was as follows :—

| | Miles. | Miles. |
|---|---|---|
| *5′ 6″ Gauge—* | | |
| State lines worked by companies | 490·05 | |
| State lines worked by the State | 482·75 | |
| Companies' lines guaranteed under old contracts | 4·65 | |
| Assisted companies' lines | 162·90 | |
| | | 1,140·35 |
| *3′ 3⅜″ Gauge—* | | |
| State lines worked by companies | 584·18 | |
| State lines worked by the State | 195·87 | |
| District Boards' lines | 5·53 | |
| Assisted companies' lines | 332·88 | |
| Lines owned by Native States and worked by companies | 130·80 | |
| | | 1,249·26 |
| *Special (2′ 6″ and 2′ 0″) Gauges—* | | |
| State lines worked by companies | 221·96 | |
| State lines worked by the State | 6·80 | |
| Assisted companies' lines | 344·02 | |
| Lines owned by Native States and worked by companies | 92·86 | |
| Lines owned by Native States and worked by State railway agency | 22·02 | |
| Lines owned and worked by Native States | 11·86 | |
| | | 699·52 |
| TOTAL | | 3,089·13 |

Important works completed and in progress.

7. The following gives a brief abstract of the important works completed and in progress during 1903 :—

*Bengal-Nagpur Railway.*—The work of doubling the main line between Bauria and Khargpur, 57·72 miles, is in progress and likely to be completed by the end of 1904.

The Midnapur-Bhojudih section, 114·50 miles, which includes a bridge (5 spans of 150 feet, one of 140 feet, and one of 40 feet) over the Damooda river, was opened for traffic on the 1st February 1903.

Of the Jheria colliery lines, the branch from Ramkanali to Chaurashi, 8·16 miles, the Bhojudih-Bhaga section, 6·66 miles, the Bhaga-Malkera section including the southern half of the Malkera-Katrasgarh cross connection, 9·50 miles, and the Bhowra siding, 2·50 miles, were opened for traffic on the 1st February, 1st September, and 14th May 1903, respectively.

The first section of the Jubbulpore-Gondia, 2′ 6″ gauge, extensions from Gondia to Neinpur, 74·50 miles, was opened for traffic on the 18th April 1903. It is expected that the line from Neinpur to Jubbulpore, and that from Seoni to Chindwara, 69·43 and 40·36 miles respectively, will be opened by the close of 1904, and the Neinpur-Seoni section, 47·13 miles, early that year.

*Bombay, Baroda and Central India Railway System.*—The Baroda-Godhra chord, 44 miles, was opened for traffic on the 23rd December 1903.

The Ahmedabad-Dholka Branch Railway was opened for traffic from Sabarmati to Bavla, 25 miles, on the 23rd February, and from Bavla to Dholka, 8·50 miles, on the 1st April 1903.

The section of the Gaekwar's Dabhoi Railway from Padra to Mobha, 9·20 miles, was opened for traffic on the 10th July 1903. The extension from Mobha to Kanjat, 6·50 miles, will, it is expected, be completed for opening early in 1904.

The remaining section of the Gaekwar's Vijapur-Kalol-Kadi railway from Kalol to Kadi, 12·20 miles, was opened for traffic on the 13th July 1903.

The construction of the Rewari-Phulera chord of the Rajputana-Malwa railway, 133·32 miles, is in progress. The line will be opened for traffic probably by June 1905.

The Jaipur Darbar have temporarily deferred the completion of the Jaipur-Siwai Modhopur railway.

*Eastern Bengal State Railway.*—In connection with the scheme for quadrupling the line between Ballygunge and Naihati, 27·85 miles, work is in progress on the Kankoorgachi-Dum Dum junction section, about 3·50 miles, which is expected to be completed during 1904.

A double line chord from Kankoorgachi to Gobra junction, 2·25 miles, is under construction and expected to be completed during 1905.

The Chitpore-Cossipore goods terminal works have practically been completed.

Work has been commenced on the Gauhati-Dhubri extension, 151·62 miles, and on the chord line between Kaunia, on the Assam section of the system, and Bonarpara, on the Brahmaputra-Sultanpur Branch railway, 44·25 miles. The chord is expected to be opened early in 1905.

Fair progress has been made with the Moorshidabad branch, 91·60 miles, which takes off from the main line at Ranaghat. It is expected that the branch will be opened for traffic by the end of 1904.

*East Indian Railway.*—Of the Jheria colliery lines, the Katrasgarh-Khanoodih extension, 7·23 miles, was opened for traffic on the 7th March; the Dhanbaid-Jheria chord, 3·79 miles, on the 1st May; and the northern half of the Malkera-Katrasgarh cross connection, 0·67 miles, on the 15th August 1903.

A portion of the third line between Asansol and Raneeganj, 3·72 miles, was opened for traffic on the 1st October 1903.

Work on the Gya-Hariharpur line, 99·79 miles, and on the Shikohabad-Furrakhabad branch, 65·82 miles, are in progress. Arrangements have been made to start work on the Ondal-Sainthia chord, 43·62 miles.

At Howrah, works in connection with the new station, the re-construction of the Buckland and Chandmari bridges, the foreshore wall of the goods yard, and the new locomotive and marshalling yard, are in progress. The remodelling of the stations and yards at Burdwan, Hooghly, and Delhi are also in progress.

*Great Indian Peninsula Railway System.*—On the Great Indian Peninsula railway, the strengthening and renewal of bridge girder spans under 30 feet are approaching completion. Arrangements are being made to start work on the doubling of the line between Khandwa and Itarsi, 110·42 miles. The rearrangement of the Bhopal station yard is approaching completion.

The line from Ait, on the Jhansi-Cawnpore section of the Indian Midland railway, to Kunch, 8·85 miles, was opened for traffic on the 7th December 1903. Work on the goods depôt at Belinganj, the business centre in Agra, to accommodate the traffic of the railways entering that city is well in hand; and the construction of the new Agra Cantonment station building has been commenced. The new goods depôt at Cawnpore is approaching completion.

The Agra-Delhi chord railway, 121·16 miles, which is under construction by State agency is expected to be opened for traffic by April 1904. The working of the line will be entrusted to the Great Indian Peninsula Railway Company.

The Gwalior-Joura section, 34·61 miles, of the Subalgarh extension of the Gwalior light railways, was opened for traffic on the 1st January 1904.

*Madras Railway System.*—The extension of the South-West line of the Madras railway from Tellicherry to Cannanore, 11·82 miles, was opened for traffic on the 20th May 1903. The remaining portion of the extension from Tellicherry to Azhikal, 4·65 miles, is approaching completion.

On the State line from Azhikal to Mangalore, 77·27 miles, which is under construction by the agency of the Madras Railway Company, the earthwork is well in hand and a commencement has been made with well sinking for bridges.

The construction on account of the State of famine feeder lines from Morrapur and Tirupattur on the South-West line of the Madras railway, to Dharmapuri and Krishnagiri, 18·37 and 26·46 miles respectively, is in progress.

The work of restoring damages caused to the North-East line (East Coast railway) by floods, and of providing additional waterway, is in hand.

RAILWAYS.

*North-Western State Railway System.*—The Kohat-Thal section, 62·03 miles, of the Khushalgarh-Kohat-Thal branch, and the cable-way across the river Indus at Khushalgarh were opened for traffic on the 1st April 1903.

The Northern section of the Jech-Doab branch from Malakwal to Sargoda, 46·25 miles, was opened for traffic on the 1st May 1903. The construction of the Southern section, from Sargoda to Shorkot Road on the Wazirabad-Khaniwal section, 103 miles, is in progress.

The construction of the Quetta-Nushki branch, 82·50 miles, and the Hyderabad-Badin line, 61 miles, is in progress. The latter will eventually form part of a through route between Bombay and Sind.

The roadway and footways of the bridge over the Kabul river at Nowshera were opened for traffic on the 1st December 1903.

Work has been commenced on the Ludhiana-McLeodganj Road extension, 162·90 miles, of the Southern Punjab railway.

*Oudh and Rohilkhand State Railway.*—The Balamau-Madhoganj branch, 14·47 miles, was opened for traffic on the 20th December 1903.

The sections of the Allahabad-Fyzabad branch from Partabgarh to Siwait, 25 miles, and Chilbila to Sultanpur, 22 miles, were opened for traffic on the 20th March and 10th April 1903, respectively. It is expected that the Phaphamau-Siwait, and Sultanpur-Fyzabad sections, 3·52 and 36·37 miles, respectively, will be opened shortly. The bridge (15 spans of 200 feet) over the Ganges and the connected line between Phaphamau and Allahabad, 8·40 miles, are expected to be completed by March 1905.

Good progress has been made with the Meerut - Hapur branch, 19·50 miles, and arrangements are in progress for the final location and staking out of the Phaphamau-Zafarabad branch, 57·50 miles.

*Assam-Bengal Railway System.*—The remaining sections of the Assam-Bengal railway from Lakwa to Bhojo, 12·75 miles; from Bhojo to Tinsukia, 41·72 miles; and from Damchara to Lumding, 100·74 miles, were opened for traffic on the 1st February, 1st March, and 1st December 1903, respectively. The extension of the jetties at Chittagong is nearing completion.

The Noakhali (Bengal) branch railway was opened for traffic from Laksam to Noakhali, 30·46 miles, on the 15th May, and from Noakhali to Shahebghatta (Ichakhali), 4·44 miles, on the 10th November 1903. The railway is worked by the Assam-Bengal Railway Company on behalf of the Branch line company.

*Bengal and North-Western Railway System.*—Of the lines under construction on the Company's section, the extension from Azimgarh to Shahganj, 34·81 miles, and Phephna to Ghazipur Ghat, 31·16 miles, were opened for traffic on the 14th February and 11th March 1903, respectively.

The extensions from Aunrihar to Jaunpur, 30·14 miles, and Kopaganj to Dhorighat, 21·70 miles, are expected to be opened by March 1904.

Arrangements have been made to start work on the Uska Bazar-Tulsipur connection, and branch thereof to Jarwa, 66·10 miles.

The encroachment of the river Ganges near the Kosi bridge (15 spans of 200 feet) on the Tirhoot section, has necessitated extensive works being taken in hand for the protection of the bridge. Good progress has been made with the repairs of bridges damaged by the floods of 1902 and in the works for the provision of additional waterway.

Arrangements have been completed to start work on the Mansi-Baptiahi chord and branch thereof to Murliganj, 78·62 miles, the Sakri-Jainagar branch, 30·47 miles, and the line from Bairagnia to Bikna Thori, 79·55 miles.

*Bengal Dooars Railway.*—The sections of the Eastern extension from Chalsa to Chengmari, 13·45 miles, from Chengmari to Dalgaon, 15·84 miles, and from Dalgaon to Madarihat, 9·51 miles, were opened for traffic on the 1st January, 23rd March, and 14th June 1903, respectively.

The line was considerably damaged by floods during the year, necessitating the suspension of traffic on the Chalsa-Chengmari and Chengmari-Madarihat sections from the 28th June to the 22nd October and 24th November 1903,

respectively. Repairs to flood damages and the provision of extra waterway are in progress. RAILWAYS.

*Burma Railways.*—The remaining lengths of the Letpadan-Henzada-Bassein extension from Letpadan, on the Rangoon-Prome section, to Tharrawa, 23·07 miles, and from Henzada to Henzada Shore, 2·46 miles, were opened for traffic on the 17th April 1903. A steam ferry has been provided for the crossing of the Irrawaddy river between Henzada Shore and Tharrawa.

The last section of the Mandalay-Lashio branch from Hsipaw to Lashio, 50·94 miles, was opened for traffic on the 1st March 1903. The work of doubling the line between Pazundaung and Thinangyun, 3·50 miles, and between Insein and Hlawga, 8·25 miles, has been commenced.

Sanction has been accorded to an estimate for the construction of an extension of the Burma railways from Pegu to Martaban, 121·27 miles, and the provision of a steam ferry service to connect the latter place with the port of Moulmein, but the commencement of work has not yet been authorised.

*Rohilkund and Kumaon Railway System.*—The extension of the Dudwa branch of the Lucknow-Bareilly State railway to Chandan Choki (the Mohan river), 5·87 miles, was opened for traffic on the 4th April 1903.

Work was started on the Company's line from Bareilly on the Lucknow-Bareilly State railway to Soron on the Rajputana-Malwa railway, 56 miles, which includes a bridge (20 spans of 100 feet) over the river Ganges at Kachla Ghat. The terms for the construction of this line provide for the free use of the existing bridge on the Oudh and Rohilkhand State railway, over the Ramganga river near Bareilly, and the sale to the Rohilkund and Kumaon Railway Company of the existing Kasganj-Soron branch, 9 miles, of the Rajputana-Malwa railway.

*Southern Mahratta Railway System.*—The construction on account of the State of famine feeder lines, from Bellary and Hospet, on the main line of the Southern Mahratta railway, to Rayadrug and Kottur, 33 and 38·10 miles, respectively, is in hand. It is expected that the lines will be opened for traffic by the end of 1904.

*South Indian Railway System.*—The remaining length of the British section of the Travancore branch from Kallidaikurichi to Shencottah, 30·88 miles, was opened for traffic on the 1st August 1903. It is expected that the Native State section from Quilon to Ponalur, 28·26 miles, and from Ponalur to Shencottah, 29·69 miles, will be opened in February and August 1904 respectively.

The remaining portion of the Tanjore District Board's Railway from Pattukkottai to Arantangi, 28·35 miles, was opened for traffic on the 31st December 1903.

*Baraset-Basirhat Light Railway.*—A commencement was made with the construction of this railway in November 1903.

*Bukhtiarpur-Behar Light Railway.*—This railway, 18·50 miles, was opened for traffic on the 1st July 1903.

*Kalka-Simla Railway.*—This line, 59·44 miles, was opened for traffic on the 9th November 1903. The station yards and buildings are being rapidly pushed to completion.

*Morvi Railway.*—Fair progress has been made with the works connected with the conversion of this line from the 2′ 6″ to the 3′ $3\frac{3}{8}$″ gauge.

8. The following were the principal events in 1903:—

*General.*—The railway from Mettupalaiyam to Coonoor, 16·90 miles, was purchased by the State from the Nilgiri Railway Company with effect from the 1st January 1903. The working of the line continues in the hands of the Madras Railway Company. Principal events.

From the 3rd March 1903, the Tinsukia junction station of the Assam Railways and Trading Company was made over to the Assam-Bengal Railway Company for joint working, and through booking was introduced between the Dibru-Sadiya and Assam-Bengal Railways.

RAILWAYS.

During the first half of 1903 the jetties at Chittagong were transferred to the Assam-Bengal Railway Company on certain conditions.

From the 15th November 1903, arrangements were made with the Bombay Steam Navigation Company for the through booking of goods between stations on the Morvi Railway and the Bombay Harbour *viâ* Navlakhi out-agency.

*Contracts executed for the Construction and Working of Railways.*—On the 1st July 1901 and the 6th November 1902, indentures were executed for the working and maintenance of the Powayan Steam Tramway by the Rohilkund and Kumaon Railway Conmpany.

On the $\frac{16\text{th}}{23\text{rd}}$ December 1901, an agreement was entered into between the East Indian Railway Company and the Administration of the Oudh and Rohilkhand State Railway, for the exercise of running powers by trains of the Oudh and Rohilkhand State Railway over the Ghaziabad-Delhi section of the East Indian Railway and for the interchange of traffic at Ghaziabad.

On the 26th August 1902, an Indenture was executed with the Barsi Light Railway Company for the construction, maintenance, and working of the Barsi Junction-Pandharpur and Barsi Town-Tadwalla extensions of the Barsi Light Railway.

On the $\frac{6\text{th}}{10\text{th}}$ October 1902, an agreement was entered into between the Administration of the North Western State Railway and the Bombay, Baroda, and Central India Railway Company, for the working by the former of the joint stations, Goniana, Jaitu, and Kot Kapura, on the Bhatinda-Kot Kapura section of the Rajputana-Malwa Railway.

On the 31st December 1902, an Indenture was executed for the working by the Madras Railway Company of the Madras-Vizagapatam section of the East Coast State Railway.

On the 15th January 1903, an Indenture was executed for the construction and working by the Bengal and North-Western Railway Company of the Ghazipur-Ballia, Azimgarh-Shahganj and Aunrihar-Jaunpur extensions.

On the 15th June 1903, a revised agreement was executed for the working of the Cooch Behar railway by the Administration of the Eastern Bengal State Railway.

On the 23rd November 1903, an agreement was entered into between the Government of His Highness the Maharaja Gaekwar, and the Bombay, Baroda, and Central India Railway Company for the working by the latter of the Vijapur-Kalol-Kadi Railway.

*Report on the Working of Indian Railways.*—Mr. T. Robertson, C.V.O., who had been appointed by His Majesty's Secretary of State for India :—

I. To inquire into and report upon the administration and working of Indian railways, whether controlled by the State or by Companies, with special reference to the system under which they should be managed in India in the future ;

II. To report upon the feasibility of a systematic plan of railway development in India, to be worked up to by the Government over a series of years ;

III. To advise as to the management and development of the traffic, the convenience of the public, and the improvement of the revenue ;

IV. Generally to make such suggestions as he may think useful for any or all of these purposes, including the extension of branches and light railways as feeders of the main lines,

has submitted his report, which has been forwarded to the Secretary of State with the views and proposals of the Government of India.

*Indian Railway Conference Association.*—In February 1902 a Conference was held at Calcutta at which it was proposed to form a "Chamber of Indian Railways," or a Conference independent of Government. Rules defining the functions of the proposed Chamber were framed and submitted to the Boards of Directors of the several Railway Companies, who at a

meeting held in London in May 1903, agreed to the formation of an "Indian Railway Conference Association," independent of Government to—

(i) elect annually a President from the representatives of the railway administrations composing it;
(ii) appoint a paid Secretary, with the necessary office establishment;
(iii) (*a*) to frame, by general agreement, regulations for the management of traffic interchanged between the railways, parties to the Association, subject to certain fundamental rules which were approved at that meeting;
(*b*) to consider questions, submitted for opinion by the Government of India or by any railways represented in the Association, on matters not falling within the provisions of the railways' contracts with the Secretary of State;
(*c*) to act as a Board of conciliation between its members.

Representatives of the several railways, parties to the original Railway Traffic Conference, accordingly assembled at Simla in October 1903 and formed the "Indian Railway Conference Association."

*Standardization of Locomotives.*—In connection with the question of the relaxation of the existing standard dimensions for Indian railways as regards fixed and moving dimensions and regulations regarding the strength of bridges and the axle loads and weight of rolling stock, the Government of India have issued revised rules for the design and inspection of railway girder bridges and for the corresponding amendments to the standard dimensions.

The Government of India have also received from the Secretary of State, standard designs by the English Engineering Standards Committee for a passenger and a goods broad gauge engine and standard designs for a passenger, a mixed, and a heavy goods metre gauge engine, and these are under consideration.

*Visit of Mr. Grant Burls, C.S.I., Director-General of Stores, India Office, to India.*—At the invitation of the Government of India, Mr. Grant Burls, C.S.I., was deputed to India, where he arrived in September 1903, to confer with the authorities in that country on the subject of ensuring a regular and timely supply of the stores required through the Stores Department of the India Office.

*Coal Loading Depôt at Luff Point.*—In November 1903 a Commission was appointed by the Government of India to inquire into and advise upon the proposal for the establishment of a loading depôt at Luff Point on the right bank of the Hooghly river for the accommodation and shipment of coal.

*River Training.*—Mr. F. J. E. Spring, C.I.E., Chief Engineer, was deputed to report on "River Training" in connection with the proposed bridge over the Ganges at Sara on the Eastern Bengal State Railway and other big existing bridges.

*Projects for New Lines.*—The promoters who were originally negotiating for the construction, on the 3′ $3\frac{3}{8}$″ gauge, of the Kurnool Road (Dhone)-Kurnool Railway (Madras), 32 miles, and the Bezwada-Masulipatam Railway (Madras), 50 miles, have been permitted to include in their scheme the Guntur-Repalle line (Madras), 38 miles, and the Phirangipuram-Gurzala line (Madras), $50\frac{3}{4}$ miles, for construction on the same gauge, and have been allowed an extension of time up to 30th April 1904 for the formation of a company and for raising the requisite capital.

The scheme for the construction, on the 2′ 6″ gauge, of the Raichur-Wondalli railway (Hyderabad), 43 miles, the concession for which was granted to the Wondalli (Deccan) Gold Mines Company and the Hyderabad (Deccan) Company in June 1900, has not advanced any further.

Revised proposals, from the Promoters for the construction, on the 5′ 6″ gauge, of the Amritsar-Tarn Taran-Patti railway (Punjab), about 27 miles, are under consideration.

RAILWAYS.

Negotiations which were stated in the last year's report to have been proceeding for the construction, on the 2′ 6″ gauge, of the Berhampore-Russelkonda railway (Madras), 49 miles, have not progressed, while those for the construction, on the 5′ 6″ gauge, of the Vizianagram-Raipur railway with Sointilla branch (Madras and Central Provinces), 359 miles, and on the 2′ 6″ gauge, of the Kangra Valley railway (Punjab), 87 miles, have been terminated owing to the inability of the Promoters to form a company on the terms offered. The proposals for the construction of the Baran-Ajmer-Marwar Railway (Rajputana), 213 miles, on the 3′ 3⅜″ gauge, have been rejected in consequence of the Promoters requiring a firm guarantee of 3 per cent. in sterling.

Negotiations are still in progress for the construction of the Rawalpindi-Murree railway (Punjab), 48 miles.

Proposals were received during the year for the construction of the following lines:—

| | Gauge. | Miles. |
|---|---|---|
| (1) A light electric tramway from Sarai Kala *viâ* Abbottabad to the Kashmir frontier (North-West Frontier Province and Kashmir) | 3′ 3⅜″ | 80 |
| (2) Railways from— | | |
| (*a*) Mymensingh *viâ* Netrokona to Bara Ari with a branch to Gauripur | 3′ 3⅜″ | 36½ |
| (*b*) Singhjani *viâ* Sherpur to Nalitbari | 2′ 6″ | 25 |

The consideration of (1) has been postponed pending a decision on the Kashmir Railway scheme, while the promoters of (2) have been asked to renew their application in January 1904.

*North and South Line connecting Ceylon and Upper India.*—The Commission which, under the orders of the Government of India, assembled in Madras in February 1903, to collect evidence and information with a view to advising Government in regard to the best means of effecting a 5′ 6″ gauge connection between the Indian system of 5′ 6″ gauge railways and the Ceylon railways on the same gauge, and to report on certain connected questions, has submitted its report, upon which it has been been decided that immediate action is not necessary. A project for extending the Pamban branch of the South Indian Railway on to Rameśvaram, and for making a ship canal through the island and establishing a coaling station there and a similar ferry service across Palk Strait to Ceylon has, however, been prepared, and is under consideration.

*Branch or Feeder Line Terms.*—The question of the general revision of the terms for the construction, outside the Government of India "Programme," of branch or feeder lines of railway by private enterprise is in abeyance pending the consideration of the proposals made by Mr. Robertson, C.V.O., in his report on the working of Indian railways, while that of the construction of feeder lines by Local District Boards from taxes expressly levied for the purpose, and of the financing of such lines, is still under consideration.

IRRIGATION.

## IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively. IRRIGATION.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the United Provinces of Agra and Oudh, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £2,027,755, comprises 459 miles of main canal and 4,476 miles of distributaries, and in the year under review supplied water to 871,862 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,643,482, and consists of 319 miles of main channels and 2,721 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 372, and 844 miles, and together irrigate upwards of 2,420,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "major" and "minor" is not in complete correspondence with the facts, as there are some minor works which are of more importance than some major works. But, speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

IRRIGATION.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1902–03, and the two previous years :—

| — | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | Acres. |
| Major Works - - - | 25,836,359 | 2,661,316 | 832,613 | 1,828,703 | 7·08 | 11,832,011 |
| Minor Works - - - | 3,811,944 | 340,810 | 139,747 | 201,063 | 5·27 | 2,256,177 |
| Total for 1902-03 - | 29,648,303 | 3,002,126 | 972,360 | 2,029,766 | 6·85 | 14,088,188 |
| Total for 1901-02 - | 28,907,836 | 2,780,923 | 936,835 | 1,844,088 | 6·38 | 14,076,999 |
| Total for 1900-01 - | 28,245,726 | 2,783,493 | 932,151 | 1,851,342 | 6·55 | 13,547,986 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated, with the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces of Agra and Oudh, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces of Agra and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year :—

| — | Bengal. | United Provinces of Agra and Oudh. | Punjab. | Madras. | Bombay, including Sind. | Baluchistan. | Rajputana. | North-West Frontier Province. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| MAJOR WORKS. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| Main Canals - | 719 | 1,509 | 1,929 | 2,091 | 1,821 | Nil. | Nil. | 22 | 8,091 |
| Distributaries - | 2,675 | 7,226 | 8,960 | 5,944 | 748 | Nil. | Nil. | 186 | 25,739 |
| Area irrigated - | Acres. 795,810 | Acres. 2,306,180 | Acres. 4,473,814 | Acres. 2,940,953 | Acres. 1,134,259 | Acres. Nil. | Acres. Nil. | Acres. 173,772 | Acres. 11,824,788 |
| MINOR WORKS. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | | Miles. | Miles. |
| Main Canals - | 24 | — | 813 | 1,359 | 2,081 | 7 | Tank irrigation. | — | 4,260 |
| Distributaries - | — | 500 | 173 | 1,191 | 234 | 39 | | — | 2,227 |
| Area irrigated - | Acres. — | Acres. 137,375 | Acres. 235,087 | Acres. 584,081 | Acres. 832,767 | Acres. 2,939 | Acres. 26,199 | Acres. — | Acres. 1,818,448 |

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept. IRRIGATION.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The Irrigation Commission, which was appointed in 1901 to inquire into the state and extent of irrigation in India, and its value in affording protection against famine, concluded their investigations in the year under review. The report was issued on the 11th April 1903, and has been published separately as a Parliamentary Paper. It is now under consideration by the Government of India.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

The progress of irrigation on the three large irrigation works in Bengal, the Orissa, Midnapore, and Sone Canals, fluctuates from year to year. In 1902–03, 796,029 acres were irrigated, as against 841,126 acres irrigated in 1901–02. Bengal.

The general results for 1902–03 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

| YEAR. | Capital Outlay to End of Year. | Receipts. | Expenditure. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| 1897-98 - - | 5,103,735 | 185,376 | 121,695 | 63,681 | 1·89 | 703,190 |
| 1898–99 - - | 5,112,735 | 163,335 | 129,362 | 33,973 | 0·66 | 712,221 |
| 1899–1900 - | 5,112,400 | 164,864 | 127,453 | 37,411 | 0·73 | 727,026 |
| 1900–01 - - | 5,137,165 | 151,767 | 107,014 | 44,753 | 0·87 | 716,271 |
| 1901–02 - - | 5,167,553 | 147,136 | 103,432 | 43,704 | 0·84 | 844,024 |
| 1902–03 - - | *5,220,323 | 168,431 | 95,709 | 72,722 | 1·39 | 800,440 |

* Includes £40,404 and £10,039 expended on two abandoned projects, viz., Tirhut and Damodar projects.

During the year under review there were in Bengal six Major irrigation works, two of which were classed as Protective. Of the productive works, three combine irrigation with navigation, and the fourth (Hijili Tidal Canal) is purely a navigation work. The two protective works, viz., the Tribeni and the Dhaka Canals, were sanctioned in 1900–01, and are still in course of construction. The former will be about 60 miles long, passing through the Bettiah Subdivision of the Champaran District. The latter will be a small canal 3½ miles long, with two branches each 7½ miles long, also in the Champaran District. At the end of the year under review, sums of £41,749 and £13,461 had been spent on these two canals respectively.

IRRIGATION.

The financial results obtained from the working of the Major and Minor works, excluding the Tribeni and Dhaka Canals, during the year under review are shown in the following statement:—

| CANAL. | Capital Outlay to End of Year. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|
| MAJOR WORKS. | £ | £ | | Acres. |
| Orissa Canals - - - - | 1,768,068 | 976 | 0·05 | 224,998 |
| Midnapore - - - - | 565,157 | 4,748 | 0·84 | 87,464 |
| Hijili Tidal Canal - - | 174,344 | 319 | 0·18 | — |
| Sone Canals - - - - - | 1,782,721 | 58,268 | 3·27 | 483,567 |
| Total Major Works - - | 4,290,290 | 64,311 | 1·50 | 796,029 |
| MINOR WORKS. | | | | |
| Calcutta and Eastern Canals - - | 478,459 | 9,360 | 1·96 | — |
| Orissa Coast Canal - - - | 298,625 | −767 | — | — |
| Sarun Project - - - | 47,295 | −183 | — | 4,411 |
| Total Minor Works - - | *824,379 | 8,410 | 1·02 | 4,411 |

* Excludes the sums spent on the Tirhut and Damodar projects.

The Orissa, Midnapore, Sone and Hijili Canals, although classed as productive works in the hope that they would prove directly remunerative, show as yet no prospect of fulfilling this expectation, which indeed is not likely to be ever realised. The working of the Sone Canals continues, however, to show an improvement on preceding years, the revenue in 1902–03 giving a return of 3·27 per cent. on the capital outlay.

The Calcutta and Eastern Canals, which up to the present year were the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hijili Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the later district would be very useful as a means of importing food.

Besides the minor works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nadia river system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, which comprises about 470 miles of channel, is used for navigation purposes only. There was a considerable increase in the loss on working the Nadia rivers during the year under review.

In the following statement the traffic on the canals in Bengal in 1902–03 is shown in comparison with the traffic results of the previous year. The Nadia rivers are included in this statement:—

| YEAR. | Length of Canal open for Navigation. | Receipts. | Maintenance Charges. | Net Receipts. | Estimated Value of Cargoes. | Number of Passengers. |
|---|---|---|---|---|---|---|
| | Miles. | £ | £ | £ | £ | |
| 1901–1902 - | 1,861 | 49,746 | 34,913 | 14,833 | 6,257,475 | 217,693 |
| 1902–1903 - | 2,253 | 45,773 | 33,83 | 11,935 | 5,832,226 | 191,128 |

The steady decrease has been due to the competition by the Bengal Nagpur Railway, but it is hoped that the lowest point has now been reached. The Calcutta Steam Navigation Company withdrew their steamer service on the Midnapore Canal from 1st July 1902.

The capital expenditure for the year amounted to £2,552 on major works (excluding protective projects), £24,930 on minor works and navigation, and £25,288 on protective irrigation works.

IRRIGATION. United Provinces of Agra and Oudh.

In the United Provinces of Agra and Oudh, taking the revenue actually realised, the general results of the irrigation operations during 1902–03 are compared with those of the five previous years in the following statement :—

| YEAR. | Capital Outlay to End of Year. | Net Revenue. | Percentage of Net Revenue on Capital. | Area Irrigated during the Year. |
|---|---|---|---|---|
| | £ | £ | | Acres. |
| 1897–98 | 5,862,864 | 507,726 | 8·66 | 2,511,173 |
| 1898 99 | 5,806,936 | 391,626 | 6·59 | 2,253,802 |
| 1899–1900 | 6,026,379 | 431,137 | 7·15 | 2,829,794 |
| 1900–01 | 6,047,532 | 434,976 | 7·19 | 2,000,926 |
| 1901–02 | 6,088,391 | 326,564 | 5·36 | 2,616,105 |
| 1902–03 | 6,153,026 | 420,739 | 6·84 | 2,442,211 |

The area irrigated by all the canals (except the Tarai and Bhabar Canals which are under the Commissioner of Kumaon) was approximately 2,442,211 acres, or 173,899 less than in the preceding year, but 302,000 more than the average of the previous 12 years. The kharif area was below the average on account of the continued and well-distributed monsoon. The receipts from minor works were 70 per cent. greater than in the previous year, but fell short of those for 1900–01 by £4,217.

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7·41 per cent. on their capital outlay. The individual returns from the five works were as under :—

| CANAL. | Percentage of Net Revenue (actually realised) on Capital. |
|---|---|
| Upper Ganges | 10·51 |
| Lower Ganges | 3·77 |
| Agra | 6·16 |
| Eastern Jumna | 24·97 |
| Fatehphur Branch | 0·12 |

The receipts from the Betwa Canal, the only "protective" work in these provinces, again fell short of the working charges of the year by £1,590. The loss is less than in the two preceding years, and a further improvement is anticipated from the construction of an additional reservoir in the Betwa river, the project for which is now under consideration.

The minor works comprise the Dún, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to £5,840, which gave a percentage of 2·76 on the capital outlay.

Of the total area irrigated, some 990,921 acres were under wheat, 44,196 under indigo, 284,065 under sugar cane, 167,921 under rice, and 205,264 under cotton. The area under cotton was the largest ever recorded, sugar cane has only once before been exceeded, and wheat was the third highest on record ; this latter crop represented nearly 41 per cent. of the total irrigated area.

The capital expenditure of the year amounted to £64,635, and of this sum £15,507 was spent on the Agra Canal, £14,833 on the Ganges Canal, £12,261 on the Eastern Jumna Canal, £5,943 on the Fatehpur Branch, and £2,200 on the Lower Ganges Canal. Among minor works, the Rohilkhand Canals were responsible for an expenditure of £7,393 during the year. The Fatehpur Branch, with the exception of two distributaries and some small minor works, was practically completed at the end of 1902.

**Irrigation.** The navigation operations on the irrigation canals are not profitable. The figures for the last six years are given in the following statement :—

| Year. | Excess of Working Expenses over Receipts. |
|---|---|
| | £ |
| 1897–98 | 525 |
| 1898–99 | 612 |
| 1899–1900 | 724 |
| 1900–1901 | 1,943 |
| 1901–1902 | 625 |
| 1902–1903 | 1,077 |

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 130,900 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

**Punjab.** In the Punjab, in the year under review, the gross direct income amounted to £1,061,185, which with the indirect revenue of £166,246 credited to the canals on account of enhanced land revenue, brings the total gross revenue of the canals to £1,227,431.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the five previous years :—

| Year. | Capital Outlay to End of Year. | Area Irrigated.* | Assessed Revenue.* |
|---|---|---|---|
| | £ | Acres. | £ |
| 1897–98 | 5,956,888 | 4,803,203 | 1,004,566 |
| 1898–99 | 6,134,972 | 4,430,018 | 983,796 |
| 1899–1900 | 6,311,559 | 4,743,329 | 920,322 |
| 1900–1901 | 6,619,394 | 5,702,296 | 1,008,954 |
| 1901–1902 | 6,744,839 | 5,065,134 | 1,015,069 |
| 1902–1903 | 6,998,734 | 5,256,040 | 1,089,785 |

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa Branch.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept :—

| Canals. | Length of | | Capital Outlay to End of Year. | Net Revenue collected in Year. | Percentage of Net Revenue on Capital Outlay. |
|---|---|---|---|---|---|
| | Main and Branch Channels. | Distributaries. | | | |
| **Major Works.** | | | | | |
| *Perennial Canals.* | Miles. | Miles. | £ | £ | |
| Western Jumna (including Sirsa Branch). | 347 | 1,803 | 1,150,100 | 99,050 | 8·61 |
| Bari Doab | 369 | 1,579 | 1,305,712 | 167,934 | 12·86 |
| Sirhind (British portion) | 319 | 2,721 | 1,643,482 | 126,234 | 7·68 |
| Chenab | 426 | 2,224 | 1,833,955 | 387,461 | 21·13 |
| Sidhnai | 68 | 131 | 86,127 | 3,403 | 3·95 |
| Jhelum | 113 | 321 | 764,596 | —7,469 | — |
| *Inundation Canals.* | | | | | |
| Upper Sutlej (including Lower Sohag and Para). | 322 | 384 | 113,434 | 7,116 | 6·27 |
| **Minor Works.** | | | | | |
| Indus | 690 | 55 | 49,550 | 5,285 | 10·66 |
| Shahpur (Imperial) | 79 | 94 | 14,394 | 3,413 | 23·70 |
| Ghaggar | 44 | 24 | 22,836 | —1,756 | — |
| Lower Bari Doab | — | — | 11,877 | — | — |
| Upper Chenab Survey | — | — | 2,671 | — | — |
| Total | 2,777 | 9,336 | 6,998,734 | 790,671 | 11·30 |

All the Punjab Canals earned over 6 per cent. with the exception of the Sidhnai, which suffered from a late and deficient rainfall, and the Jhelum, which is not yet in full working order. The Chenab Canal, the largest of all, gave a return of 21·13 per cent. on the capital cost.

On the Native States branches of the Sirhind Canal the area irrigated was 345,110 acres against 341,553 acres in the preceding year. The profit earned by these canals was 6·41 per cent. on the total capital expenditure incurred to the end of the year.

The capital outlay for the year on works for which full accounts are kept amounted to £252,556, of which £133,726 was expended upon the Jhelum Canal, £63,594 on the Chenab Canal, and £30,172 on the Bari Doab Canal.

The net revenue from minor works shows a decrease for the year of nearly 54 per cent., the great difference being chiefly due to the inclusion for 1901–02 of the figures relating to the Upper Sutlej Series of Inundation Canals, which have since been classed as major works.

The navigation operations on the Western Jumna Canal resulted in a profit of £5,678. The Sirhind Canal was worked at a loss of £134.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892–93, when 157,197 acres were irrigated :—

| Year. | Capital Outlay to End of Year. | Area Irrigated during the Year. | Net Revenue during the Year. | Return on Capital Outlay. |
|---|---|---|---|---|
| | £ | Acres. | £ | Per Cent. |
| 1892-93 | 721,233 | 157,197 | —4,084 | —0·57 |
| 1893-94 | 878,034 | 270,405 | 3,552 | 0·40 |
| 1894-95 | 995,032 | 269,357 | 9,511 | 0·96 |
| 1895-96 | 1,174,781 | 369,935 | 51,632 | 4·40 |
| 1896-97 | 1,362,075 | 520,279 | 92,629 | 6·75 |
| 1897-98 | 1,512,916 | 810,000 | 111,041 | 7·34 |
| 1898-99 | 1,616,076 | 957,705 | 131,566 | 8·14 |
| 1899-1900 | 1,677,982 | 1,353,223 | 155,302 | 9·26 |
| 1900-01 | 1,725,676 | 1,830,525 | 241,812 | 14·01 |
| 1901-02 | 1,770,361 | 1,748,129 | 334,183 | 18·88 |
| 1902-03 | 1,833,955 | 1,829,169 | 387,461 | 21·13 |

This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the canal.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels. Burma.

In Upper Burma there are only two major irrigation works, namely, the Mandalay Canal and the Shwebo Canal. The first was sanctioned in 1896, and provides for a canal to take off from the Madaya River, 39 miles long, with 86 miles of distributaries; it is expected to irrigate 80,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1902–03 to £313,118, of which £41,034 was expended during the year. The canal is expected to cost £316,026.

The Shwebo Canal was sanctioned in 1900, and is estimated to cost £320,273. Up to the end of the year £133,839 had been expended upon it. The canal is designed to irrigate an area of 150,000 acres annually in portions of the Shwebo and Sagaing districts of Upper Burma, where the rainfall is so uncertain that rice cultivation is very precarious. The main and two branch canals will together be 77 miles long, and the total length of the distributaries 193 miles. Water will be drawn from the River Mu.

The minor works, with a capital expenditure of £230,288, show a profit on the year's working of £64,383 or nearly 28 per cent. The surplus revenue for the year, after paying interest at 4 per cent. on direct capital outlay, amounts to £55,430.

IRRIGATION. The working of the major works during the year resulted in a loss of £578.

Central Provinces. In the Central Provinces, one protective irrigation work, the Khyrbanda tank, is in course of construction. It is estimated to cost £11,815, of which £2,116 had been spent up to the end of 1902-03.

Madras. From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the season was unfavourable.

There are at present 9 "major" works and 32 "minor" works, for which capital and revenue accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 32 minor works for which full accounts are kept, 28 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,766 miles, and of distributary channels 7,135 miles. The area irrigated during the year by these works was 3,525,034 acres, the crops grown being valued at £5,970,460.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement :—

| YEAR. | Capital Outlay. | Area Irrigated. | Net Actual Revenue. | Percentage of Net Revenue on Capital. |
|---|---|---|---|---|
| | £ | Acres. | £ | |
| 1898-99 | 5,988,198 | 3,339,379 | 445,812 | 7·44 |
| 1899-1900 | 6,057,431 | 2,928,463 | 398,531 | 6·58 |
| 1900-01 | 6,136,629 | 3,426,374 | 444,521 | 7·24 |
| 1901-02 | 6,207,041 | 3,550,036 | 485,945 | 7·83 |
| 1902-03 | 6,299,896 | 3,525,034 | 480,595 | 7·63 |

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be £726,641. The decrease of revenue during the year was due chiefly to larger remissions made on account of the unfavourable character of the season, and to late rains and freshes in certain districts.

The results of the year's working for the major works in operation are shown by the following figures :—

| WORK. | Area Irrigated. | Capital Outlay. | Net Revenue. | Percentage of Net Revenue on Capital. |
|---|---|---|---|---|
| | Acres. | £ | £ | |
| Godaveri Delta | 810,634 | 891,667 | 164,185 | 18·41 |
| Kistna Delta | 627,850 | 959,777 | 151,796 | 15·81 |
| Pennér Anicut | 163,641 | 417,457 | 20,926 | 5·01 |
| Kurnool-Cuddapah Canal | 60,154 | 1,450,403 | 7,532 | 0·52 |
| Barur Tank | 5,325 | 28,751 | 412 | 1·43 |
| Cauvery Delta | 982,356 | 204,680 | 58,264 | 28·46 |
| Srivaikuntham Anicut | 44,526 | 100,108 | 6,143 | 6·13 |
| Periyar Project | 154,068 | 599,171 | 21,839 | 3·64 |
| Rushikulya (Protective Work) | 92,399 | 326,491 | 1,903 | 0·61 |
| Total | 2,940,953 | 4,978,505 | 433,090 | 8·70 |

The minor works for which full accounts are kept irrigated an area of 584,081 acres, and earned a net revenue of £47,505, equivalent to a percentage of 3·60 on the capital expended on them. The purely navigation works were in each case worked at a loss. IRRIGATION.

Besides the works referred to in the foregoing paragraphs there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The total irrigation revenue derived from these works in 1902–03 was £609,234, the net revenue being some £368,389 and the area irrigated by them was 3,436,651 acres. A plan for the systematic repair of some of these works has now been in progress for some years under the title of the "Tank Restoration Scheme," and is about one-third completed. Up to the end of the year an expenditure of £495,434 had been incurred under this scheme, and approximately 52,286 square miles had been investigated.

The capital expenditure for the year on the major works amounted to £60,731. This expenditure was incurred chiefly on the Kistna, Penner, and Cauvery works.

In the Bombay Presidency, excluding Sind, the water system does not admit of the construction of large irrigation works. The rivers or streams are small, and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or "tanks." Of the 39 works for which full accounts are kept, 13 are classed as major works, among the most important being the Nira and Mutha Canals in the Poona District, and the Mhasvad and Ekruk tanks. Bombay, excluding Sind.

During the year, operations were commenced in connection with the Gokak, Krishna, and Godaveri surveys. Progress was also made with the construction of the Bokh Reservoir, and the work for the provision of automatic gates for the Lake Fife waste weir on the Mutha Canals was commenced.

The total area irrigated in 1902–03 was 100,496 acres against 129,377 acres in the previous year. The gross revenue fell from £49,888 in 1901–02 to £49,826.

A comparative statement of the results from those works, for which full accounts are kept for 1902–03 and the preceding five years, is given in the following table:—

| YEAR. | Capital Expenditure to End of Year. | Area Irrigated. | Revenue Realised. | Working Expenses. | Net Revenue. |
|---|---|---|---|---|---|
| | £ | Acres. | £ | £ | £ |
| 1897-98 - - | 1,772,069 | 126,516 | 42,386 | 26,926 | 15,460 |
| 1898-99 - - | 1,780,253 | 103,849 | 46,451 | 22,453 | 23,998 |
| 1899-1900 - - | 1,798,204 | 104,624 | 48,371 | 23,643 | 24,728 |
| 1900-01 - - | 1,821,283 | 124,394 | 34,967 | 27,834 | 7,123 |
| 1901-02 - - | 1,856,289 | 129,377 | 49,888 | 26,872 | 23,016 |
| 1902-03 - - | 1,886,089 | 100,496 | 49,826 | 22,728 | 27,098 |

The net revenue realised for the year represents a return of 1·43 per cent. on the capital expenditure, a percentage which compares favourably with the corresponding percentage of the previous year, viz., 1·24 per cent. The increase was chiefly due to a reduction in working expenses.

The major works in operation produced a net revenue equivalent to 1·90 per cent. on the capital of £1,336,614 expended on them. The most important of these major works, judged by the amount of capital expenditure, is the Mutha Canals System with the Lake Fife Reservoir, which in 1902–03 irrigated an area of 8,101 acres, and yielded a net revenue of £10,872 or 2·39 per cent. on the capital outlay. The Krishna Canal, with a capital expenditure of £57,659, yielded the highest return for the year, viz., 3·69 per cent.

The revenue realised by the minor works during the year under review amounted to £1,848, equivalent to 0·35 per cent. on the capital outlay.

IRRIGATION. The capital outlay during the year on the major works amounted to £22,597, and on the minor to £7,203, the principal works in progress being the Mutha and Nira Canals, and the Shetphal and Maladevi tanks. On the former the expenditure was chiefly on the work of providing a set of automatic gates for the waste weir of Lake Fife, with a view to increasing the storage.

The minor class of works, for which only revenue accounts are kept, yielded a gross revenue of £34,397, and a net revenue of £7,237; the class for which neither capital nor revenue accounts are kept were worked at a loss of £18,778.

Sind. In Sind the success of the irrigation operations is dependent on the regular rise of the River Indus. In the year under review the inundation was very much below the average, the river in August 1902 being lower than in any of the past 40 years except 1899.

The results of the working in 1902–03 of those works for which full accounts are kept are given in the following table:—

| Works. | Capital Expenditure to End of Year. | Area Irrigated. | Revenue Realised. | Working Expenses. | Net Revenue. |
|---|---|---|---|---|---|
| | £ | Acres. | £ | £ | £ |
| Major - - - - | 1,596,124 | 1,072,001 | 128,586 | 52,372 | 76,214 |
| Minor - - - | 278,028 | 794,530 | 80,083 | 23,171 | 56,912 |
| Total - - - | 1,874,152 | 1,866,531 | 208,669 | 75,543 | 133,126 |

The foregoing results represent a return of 7·10 per cent. on capital expenditure. In Sind, the existence of cultivation depends upon irrigation, and there is a constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results obtained from the working of irrigation canals in Sind.

During the year the re-modelling of the Desert Canal and the Mahiwah project were practically completed, and two Rajwahs were constructed on the Sukkur Canal. The cadastral survey of lands in the Khelat territory, settled on the Desert and Begari Canals, was in progress, and the contour survey of the Ghar Canal was finished. The widening and improvement of the Nasrat Canal was also carried on.

The amount of capital expenditure during the year on works for which full accounts are kept was £128,041. The area irrigated by all classes of works in Sind was 2,625,671 acres against 2,586,366 in the previous year.

The minor class of works for only revenue accounts are kept yielded a gross revenue of £104,563, and a net revenue of £44,884; the class for which neither revenue nor capital accounts are kept were worked at a loss of £18,162.

North-West Frontier Province. The only "major" work in the North-West Frontier Province is the Swat River Canal, a protective scheme with a length of 22 miles in the main and branch channels and 186 miles in distributaries. The capital outlay to the end of the year under review amounted to £277,750, and the net revenue for the year was £29,388, giving a return of 10·58 per cent. on the capital cost. The total area irrigated during the year formed a record, being 173,772 acres or 15,943 acres more than that of 1901–02.

The "minor" works in operation are the Kabul River Canal with a capital expenditure of £31,915, and the Bara River Irrigation Works for which the figures of cost are not available. The results of working for the year show a net revenue of £7,324 on the Kabul River Canal, equivalent to a return of 22·95 per cent. on the capital outlay. In the case of the Bara River Works, there was a loss of £190. No figures are available with regard to the area irrigated by these works.

Baluchistan. There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and

the Khushdil Khan Reservoir, the former of which has cost £45,148, and the latter £66,274.

In the year under review the net revenue from the Shebo Canal was £12, or 0·09 per cent. on the capital outlay. The working of the Khushdil Khan Reservoir resulted in a loss of £675, no water being available for cultivation.

The area irrigated by the Shebo Canal was 2,939 acres, as compared with 7,712 acres by the two works in the preceding year. The value of the crops raised was £1,182.

## BUILDINGS AND ROADS (CIVIL).

Buildings and Roads (Civil).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds. The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1902–03 under the heads referred to is shown in the following table:—

| — | Imperial. | Provincial. | Local. | Total in India. | Expenditure in England. | Grand Total. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Military works | 1,034,062 | — | — | 1,034,062 | 62,607 | 1,096,669 |
| Civil Works | 480,070 | 2,347,103 | 1,211,044 | 4,038,217 | 107,562 | 4,145,779 |
| Total, 1902–03 | 1,514,132 | 2,347,103 | 1,211,044 | 5,072,279 | 170,169 | 5,242,448 |
| Total, 1901–02 | 1,372,692 | 2,012,935 | 1,107,219 | 4,492,846 | 139,788 | 4,632,634 |
| Total, 1900–01 | 1,002,395 | 1,846,511 | 1,087,293 | 3,936,199 | 133,343 | 4,069,542 |

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to £6,864 in 1900–01. In 1901–02 and 1902–03 no expenditure occurred under this head.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

The following detailed account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on Civil Works was as follows:— Bengal.

| | £ |
|---|---|
| Imperial | 81,349 |
| Provincial | 381,346 |
| Local | 313,739 |
| Total | £776,434 |

BUILDINGS AND ROADS (CIVIL).

In addition to the works in connection with the proof-range at Chandipur and the combined Foreign and Military Secretariats at Calcutta, the only important Imperial work in progress was the construction of a temporary check station at Barrackpore in connection with the Magnetic Survey of India.

Among provincial works, additional accommodation was provided for several of the Civil and Criminal Courts in the province. Considerable expenditure was incurred on jail buildings, and a few new buildings were erected for the police. Extra accommodation was provided for several educational institutions. The new buildings for the Presidency General Hospital and the Lunatic Asylum at Berhampore were almost completed. A large number of residences were constructed for munsifs; and a fair beginning was made in the matter of providing residences for Government officials in stations where it is becoming difficult to secure accommodation.

As regards communications, special repairs were carried out on the Tista Valley road and the Darjeeling Hill cart road. Feeder roads to the South Behar Railway in the Monghyr district were under construction, and steps were taken for connecting the south-western portion of the Ranchi district with the native State of Gangpur.

United Provinces of Agra and Oudh.

In the United Provinces of Agra and Oudh the outlay under the different heads of service was as follows :—

| | £ |
|---|---|
| Imperial - - - - | 21,107 |
| Provincial - - - | 310,950 |
| Local - - - - | 213,837 |
| Total - - | 545,894 |

The chief works completed during the year were the Judicial Commissioner's Courts at Lucknow and the police station at Benares. Among the important building works in progress were judges' courts at Fyzabad and Aligarh, additions to the Colvin Hospital at Allahabad, and large improvements to the Government Press buildings. On roads, the most important work started was the construction of a bridge over the Chota Gandak in Gorakhpur. Road communications in Bundelkhand and the trans-Jumna tract of the Allahabad district and in Gonda also received special attention. The usual dredging of the Ganges channel was carried out.

The total mileage of metalled road maintained by the Public Works Department and by local authorities during the year was 5,647 miles. One hundred miles of new metalled road were constructed.

Punjab.

In the Punjab the expenditure for the year on Civil Works was as follows :—

| | £ |
|---|---|
| Imperial - - - | 67,954 |
| Provincial - - | 269,363 |
| Local - - - | 53,554 |
| Total - - | 390,871 |

During the year under review, the new Imperial Civil Secretariat offices at Simla were in active progress, and will probably be ready for occupation in July 1904. The expenditure to the end of the year was £44,133. Designs for a new General Post Office at Lahore, estimated to cost £19,797, were sanctioned in August 1902, and work was commenced in the following month. The telegraph office at Lyallpur, and the combined post and telegraph offices at Sargoda and Mianwali, were in progress, and meteorological observatories at Serain and Kalabagh, in the Simla district, were completed.

Under the head of Provincial Civil Works, the principal buildings in progress were those required for the new Headquarters Civil station of Mianwali, and those at Sargoda, the chief town of the new Jhelum Canal Colony. A new Treasury, with quarters for the guard, in Lahore Fort, was constructed, in order that the Moti Masjid might be vacated and maintained as an archæological monument. An estate at Kasauli was also purchased, and alterations were put in hand to render it suitable for the Pasteur Institute. The Kangra Valley cart road improvements were steadily proceeded with, and various other repairs of roads and bridges were carried out. The

BUILDINGS AND ROADS (CIVIL).

operations at Dera Ghazi Khan for training the River Indus, as a protection against floods, promise to be fairly successful, although considerable damage has already been done to the hurdle dykes, two of which were washed away. Boat bridges were maintained on the important through lines of communication, and the usual steam ferry continued to be worked over the River Indus at Dera Ghazi Khan under the management of the North-Western Railway.

In addition to the ordinary work of the Department, considerable stress was laid on the establishment of the local Buildings and Roads branch by the important share in the construction works of the Coronation Darbar which devolved upon them. Not only were these works of some magnitude, involving as they did an expenditure of about 15½ lakhs, but they had to be pushed through with remarkable promptitude, and several of them presented many novel features and difficulties.

The comparative expenditure on civil buildings and communications were as follows :—

| | Original Works. | Repairs. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Civil Buildings | 73,910 | 16,497 | 90,407 |
| Communications | 14,026 | 37,616 | 51,642 |

Including station roads, the total road mileage at the end of the year was 22,754 miles, viz., 2,024 miles metalled and 20,730 unmetalled. An Imperial grant of £53,333 was available for Famine Relief Works in charge of the Public Works Department, but the rainfall over the unprotected areas of the province was favourable, and no relief works were found necessary.

Burma.

In Burma the total expenditure on Civil Works for the year was :—

| | £ |
|---|---|
| Provincial | 582,290 |
| Local | 85,397 |
| Total | 667,687 |

Among the works completed during the year were forest offices at Maymyo and Myitkyina, a combined post and telegraph office at Taikkyi, post offices at Maymyo and Kampetlet, a telegraph office at Myitkyina, a jail at Mergui, and a new lighthouse on Green Island. The works under construction included a new jail at Mogok and a lighthouse on Beacon Island.

At the end of the year there were 1,678 miles of metalled roads and 7,903 miles of unmetalled roads in the province.

Central Provinces

The amount of the expenditure for the year was :—

| | £ |
|---|---|
| Imperial | 1,651 |
| Provincial | 172,166 |
| Local | 21,492 |
| Total | 195,309 |

No Imperial works of any importance were undertaken. Owing to the failure of the rice crop, it was found necessary to open famine works on roads in the Raipur district, but the expenditure so incurred was not great. The development of road communications in these provinces has been very rapid, the total length of metalled roads now maintained being 1,374 miles, and of unmetalled roads 3,805 miles. District, Tahsil and Secretariat offices, together with circuit-houses, were responsible for an expenditure of over £23,300 during the year. Good progress was made in the construction of the Nagpur Technical Institute and Memorial Hall.

The output in the Warora Colliery during the year was 150,339 tons, being only a few tons short of the record output of the preceding year. The net profit amounted to £16,532, equal to a return of 16·24 per cent. on the capital expenditure, a most satisfactory financial result.

BUILDINGS AND ROADS (CIVIL).

Assam.

The total expenditure in Assam for the year was as follows :—

| | £ |
|---|---|
| Imperial | 1,716 |
| Provincial | 121,541 |
| Local | 38,572 |
| Total | 161,829 |

Of the Imperial expenditure, £666 was spent on original works (Civil buildings) and £712 on repairs to buildings. The only original work of importance was the construction of a telegraph office at Dinapur. Of Provincial Civil Works, the most important buildings in hand were the new Government House at Shillong and offices and court-houses at Sylhet. The chief work in connection with communications was the metalling of the Nichuguard-Manipur road, for which an estimate of £16,850 has been sanctioned.

Madras.

In Madras the expenditure for the year on Civil Works was as follows :—

| | £ |
|---|---|
| Imperial | 5,648 |
| Provincial | 213,364 |
| Local | 318,500 |
| Total | 537,512 |

In the classes of buildings and roads there were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

In the districts, the buildings under construction were of the usual type of taluk offices and cutcherries, court-houses, and other buildings required by the different branches of the Administration. The newly-built tower of St. Mark's Church, Bangalore, collapsed in December 1902, and steps will shortly be taken for its restoration.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and the Tellicherry-Coorg road was taken over during the year; the cart road from Salem to Yercaud and the Anamalai ghat road was also completed and opened for traffic. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 23,777 miles of road were maintained by public authorities, apart from roads and streets within municipal limits.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast-line, is the maintenance of its harbours and lighthouses. The scheme for the better illumination of the coasts and the dangerous rocks and shoals in their vicinity, drawn up some six years ago, was this year practically completed at a cost of £40,787. Part of this sum will ultimately be recovered by the levy of light dues on shipping.

An iron screw pile jetty at Cocanada was completed, and at Madras a sum of £1,533 was spent on an experimental attempt to keep open the mouth of the Cooum River by means of a groyne composed of iron piles sunk by water jet, and plank shutters.

Bombay.

The expenditure on Civil Works in the Buildings and Roads branch in the Bombay Presidency for 1902–03 was as follows :—

| | £ |
|---|---|
| Imperial | 29,615 |
| Provincial | 296,082 |
| Local | 149,736 |
| Total | 475,433 |

BUILDINGS AND ROADS (CIVIL).

The principal buildings under construction during the year were the new Magnetic Observatory at Alibág; the Lord Harris Primary School at Bombay; an Orphanage and Training School at Poona; High Schools at Sholapur and Bijapur, court-houses at Nevása, Násik, Belgaum, Vita and Rohri; a new jail at Karachi; police lines at Pandu, Sadra, Poona, Sholapur, Sukkur, and in the Násik, Kanara, and Upper Sind districts; the Byramji Jijibhoy Hospital at Matheran, and six dispensaries.

The Provincial lines of communication on which expenditure was incurred during the year included a number of new metalled and unmetalled roads in all divisions, but the cost of these original works was only £23,125 as compared with an outlay on repairs of £51,227.

The total mileage of roads, not within municipal boundaries, maintained by the Public Works and local authorities amounted in 1901 to 3,669 miles of metalled and 12,836 miles of unmetalled road. The figures for the year under review are not available.

The Local Fund works consisted of roads, school-buildings, and miscellaneous water-supply works carried out through the agency of the Public Works Department.

Berar.

The expenditure on Civil Works in the Hyderabad Assigned Districts was as follows:—

| | £ |
|---|---|
| Imperial | 27,962 |
| Local | 8,303 |
| Total | £36,265 |

The greater part of the year's outlay was upon the extension and repair of the road system.

Coorg.

The expenditure on Civil Works in Coorg was as follows:—

| | £ |
|---|---|
| Imperial | 14,738 |
| Local | 2,097 |
| Total | £16,835 |

Of the Imperial expenditure, a large portion was for materials for the construction of barracks at Mercara for the 11th Coorg Infantry. A boarding-house to the Mercara High School, and extensions to the district jail were also completed. Of the total expenditure for the year, about three-fifths related to communications. The Madapur bridge was practically completed, and some progress was made with the new road connecting South Coorg with the Malabar-Wynad.

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

### Post Office.

Post Office.

The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

| Year. | Receipts. | Expenditure. | Net Revenue. |
|---|---|---|---|
| | £ | £ | £ |
| 1900-01 - - - | 1,357,124 | 1,222,161 | 134,962 |
| 1901-02 - - - - | 1,383,709 | 1,280,624 | 103,085 |
| 1902-03 - - - | 1,429,935 | 1,346,778 | 83,157 |

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1902–03 would be £102,400.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These include the figures for the district post, of which the Post Offices number 1,750; the letter-boxes 5,045, and the village postmen 2,889.

| Year. | Post Offices. | Letter Boxes. | Village Postmen. | Length* of Postal Lines. |
|---|---|---|---|---|
| | No. | No. | No. | No. |
| 1900-01 - - - | 12,970 | 25,509 | 7,936 | 133,285 |
| 1901-02 - - - - | 13,845 | 28,902 | 7,944 | 136,954 |
| 1902-03 - - - | 14,736 | 31,071 | 8,135 | 139,814 |
| Increase in 1902–3 over 1901–1902 - - - - | 891 | 2,169 | 191 | 2,860 |

* Including the Bombay-Aden line, which had been omitted in previous reports.

Of the total length of postal lines, 35,776 miles belonged to the district post and 1,259 miles were political lines administered by the Imperial Post Office. The increase was greatest under the head of "runners and boats," which was chiefly due to the opening of new lines in the Punjab and North West Frontier Province. There was also an increase of 777 miles under railways.

| Year. | Letters (including Postcards). | Newspapers. | Book and Pattern Packets. | Parcels. | Total. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1900-01 - - | 469,209,482 | 32,091,400 | 28,302,751 | 2,679,109 | 532,282,742 |
| 1901-02 - - | 495,692,031 | 31,550,052 | 29,712,460 | 2,991,304 | 559,945,847 |
| 1902-03 - - | 520,558,125 | 32,558,182 | 32,708,771 | 3,472,338 | 589,297,416 |
| Increase in 1902–03 over 1901–1902 - - | 24,866,094 | 4,004,441 | | 481,034 | 29,351,569 |

The general correspondence returns, of which a summary is given above, show an increase of over 57 millions of articles (excluding money orders) carried by post in 1902–03, as compared with the figures for 1900–1901. Of this increase over 35 millions were due to postcards, the total number of which exceeded that of paid letters.

The total number of articles received for delivery, including money orders, was over 604 millions, of which 97·84 per cent. were delivered against 97·85 in the preceding year. The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 4,774,440; of this number 1,171,432 articles were disposed of by being re-directed, and then

delivered to the persons to whom they were addressed, while 2,414,975 were returned to the senders, and 1,538,106 could not be disposed of. This last figure is under 0·3 per cent. of the total number of articles given out for delivery, and a large proportion of the articles not disposed of were from their nature not capable of delivery. POST OFFICE.

A large amount of valuable property was, as usual, found in letters and other articles posted without addresses, or with addresses so incorrect and incomplete that the covers had to be opened in order that the senders might be traced. In articles opened in the five more important dead letter offices were found cheques, hundis, bills of exchange, currency notes, coins, and other property, of the nominal value of Rs. 546,030.

The sale of British penny postage stamps for the purpose of prepaying replies from England and of making up broken amounts of British postal orders was introduced in February 1901 at Simla and Rangoon. As there proved to be a demand for these stamps, the system was extended in July to all the important offices in India.

The letters and postcards despatched from India to the United Kingdom in 1902–03 are estimated at 4,504,674 against 3,912,481 in 1901–02, or an increase of 15·14 per cent. Those received in India from the United Kingdom are estimated at 5,446,218, against 4,707,466 in the previous year, or an increase of 15·69 per cent. This very large increase is attributed to the continued effects of the cheapening of rates for letters in 1898 and to the increasing use of pictorial postcards.

The newspapers, book packets, and samples despatched home from India showed an increase of 13½ per cent., and the number of such articles received in India from the United Kingdom showed a decrease of 2½ per cent.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations used to be taken once in three years, alternately in May and November, and were last recorded in May 1896. The total number of letters and postcards exchanged with such countries was over 4¼ millions, and that of newspapers and book-packets nearly 3 millions. Under the terms of the Principal Convention of Washington, no further statistics are to be taken during the currency of that Convention.

The number of parcels exchanged with the United Kingdom rose from 201,668 in 1901–02 to 233,957—an increase of 16 per cent. This formed over 61 per cent. of the whole foreign parcel traffic. They were mostly sent *viâ* Gibraltar, but about a tenth were sent by the quicker Brindisi route. In the exchange of parcels with other countries there was again a satisfactory development of the traffic in both directions, an addition of 13·9 per cent. having been made to the number of parcels. The increase in the number of parcels sent to non-European countries is again to be attributed in great measure to the steady growth of the parcel post with Ceylon, to which inland rates apply, but there was, at the same time, a distinct development of the traffic with Egypt, Natal, and the Cape Colony.

The receipts from the insurance of letters and parcels were £16,930, as compared with £16,475 in the preceding year. There was an increase of 10·52 per cent. in the number of articles insured and of 2·76 per cent. in their value.

The average value for which each article was insured was, in the case of letters, Rs. 232, as compared with Rs. 238 in the previous year, and in that of parcels, Rs. 254, against Rs. 279 in 1901–02.

The number of claims for compensation preferred in respect of insured articles was 45, as compared with 17 in the preceding year. Thirty-eight claims were admitted, which involved the payment of £657 or 3·88 per cent. of the total amount realised from insurance fees, against a percentage of 1·38 in the preceding year; of the claims admitted, the loss was due in 20 cases to fraud or negligence on the part of the servants of the Post Office, in 14 cases to the loss of vessels at sea, and in the remaining four cases to highway robbery of mails in British territory. Of the seven claims not admitted, one was definitely rejected, and six were pending at the close of the year. In the former case, in which compensation was refused, the insured letter had been delivered in good condition, with all the seals intact, and under a clear receipt.

POST OFFICE.

The business of the value-payable past continues to show each year an increased rate of progress. The number of articles sent was 3,339,097, and the amount declared for recovery by the Post Office from the addressees was over £2,667,000, the commission on which was £39,634. There was an increase of 17·28 per cent. in the number of articles, and of 13·94 per cent. in the value specified for recovery. The commission realised shows a decrease owing to the reduction in the commission on money orders not exceeding Rs. 5. Calcutta was responsible for nearly one-third of the entire business. The number of value-payable articles posted at the Calcutta General Post Office and its town sub-offices was nearly 1,100,000; and this department realised on the delivery of these articles a sum in excess of one crore of rupees.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 47,948 value-payable articles were dispatched from India to Ceylon, as compared with 41,799 articles in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 12. 3. 3, as compared with Rs. 12. 8. 11 in 1901–02.

The reduction in the commission on money orders not exceeding Rs. 5 has had a marked effect on the money order business: the number and value of inland money orders issued in India, including telegraphic money orders, but excluding transactions with Native States, increased respectively from £13,581,928 and £17,896,744 in 1901–02 to £15,311,955 and £18,547,845 in 1903–03; the commission realised has, on the other hand, owing to the same cause, fallen from £225,797 to £219,811. The average value of an inland money order was Rs. 18. 2., against Rs. 19. 7. in the previous year. This continual fall in the average price of money orders and value-payable articles is considered satisfactory, as showing that both systems are becoming popular among a poorer class. The circles of Bengal, the United Provinces, and Madras are responsible for about half of the total money order business.

The above figures include the special classes of money order for payment of revenue, rent, and miscellaneous Government dues. These show an increase in most of the provinces where they are employed.

Revenue orders are employed in Bengal, the United Provinces, the Central Provinces, the Punjab and the North-Western Frontier Province. The amount issued under this head rose from £613,000 in 1901–02 to £638,000 in 1902–03.

Rent money orders are employed in Bengal, the United Provinces, and Central Provinces: the issues under this head rose from £150,000 to £158,000.

Orders for miscellaneous Government dues are employed in Bengal, the United Provinces, the Punjab, the North-Western Frontier Province, Madras, and Burma: the amount issued rose from £218,000 to £240,000.

In the money order transactions with Native States the number and value of the issues in those States were respectively 63,504 and £106,571, against 58,212 and £114,089 in the previous year; and the number and value of payments in the States were 105,554 and £157,770, as compared with 88,826 and 149,410 in 1901–02. The excess of the issues by the States over the payments is again mainly due to the large issues of the Gwalior State.

The number of telegraphic money orders issued in 1902–03 was 181,016 for £1,293,881, as compared with 176,382 orders for £1,290,718 in the preceding year. The average value of a telegraphic money order was Rs. 107. 3. 5., against Rs. 109. 12. 0. in 1901–02. The postal commission amounted to £13,452, in addition to £12,068 charged for the telegrams and credited to the Telegraph Department. For the preceding year the figures were £13,372 and £11,759 respectively.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India. The number of such orders issued by India rose from 91,695 in 1901–02 to 98,896 in 1902–03, and the value increased from £323,622 to £330,330, while the orders paid in India increased in number from 67,174 to 79,581, and in

POST OFFICE.

amount from £402,228 to £519,297. In 1901–02 of the total sterling money order transactions, viz., £725,850, no less an amount than £671,077 was with the United Kingdom and British colonies, and in 1902–03 the corresponding figure was £794,118, out of a total of £849,627. There was an increase of over 7,000 in the number of remittances sent by money orders to the United Kingdom, and of nearly £13,000 in the value of remittances from the United Kingdom to India.

The average value of a sterling money order issued by India was £3 6*s*. 10*d*. as compared with £3 10*s*. 7*d*. in 1901–02, and that of a sterling money order paid in India was £6 10*s*. 6*d*., as compared with £5 19*s*. 9*d*., the average in the preceding year.

The money order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India fell from £65,370 in 1901–02 to £63,029 in 1902–03, and the orders paid by India, from £551,996 to £476,982. The decrease is chiefly due to the return of Indian labourers from East Africa: the Straits Settlement and Hong-Kong show a great falling off both in payments and issues: the interchange with Ceylon, however, continues to increase.

Including inland and foreign money orders, both ordinary and telegraphic, the total of the money orders issued by the India Post Office in 1902–03 amounted to £19,047,775, against £18,399,825 in 1901–02, and the total of payments to £19,673,430, against £18,993,530 in the preceding year.

At the close of the year there were 7,075 offices performing savings bank business, against 7,053 in the preceding year. The number of accounts in the Post Office savings banks rose from 866,693 to 922,353, the deposits, exclusive of transfers from one post office to another, from £2,771,778 to £2,897,347 and the withdrawals from £2,549,945 to £2,621,097; and the interest rose from £204,078 to £216,704. The balance at the credit of depositors at the close of 1902–03 stood at £7,614,370 against £7,121,416 at the close of 1901–1902. The average balance at the credit of each depositor was Rs. 123·83, as compared with Rs. 123·25 in the previous year. The table in the margin shows the number of depositors in different classes for the years 1901–02 and 1900–03.

| Class of Depositors. | Average Number of Deposits. | | |
|---|---|---|---|
| | 1901 02. | 1902–03. | Increase. |
| I. Professional - | 291,238 | 308,262 | 17,024 |
| II. Domestic - | 151,204 | 161,346 | 10,142 |
| III. Commercial - | 32,065 | 34,123 | 2,058 |
| IV. Agricultural - | 12,387 | 15,065 | 2,678 |
| V. Industrial - | 27,450 | 30,928 | 3,478 |
| IV. Indefinite - | 352,349 | 372,629 | 20,280 |
| Total - - | 866,693 | 922,353 | 55,660 |

During 1902–03 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £25,500, against £25,300 in the preceding year; and the balance of securities in the hands of the Comptroller-General at the close of the year was £78,000, compared with £73,600 on the 31st March 1902.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show an increase of 1,061,540 packets over the previous year.

The total number of Native army pensioners whose pensions were paid through the Post Office in the Punjab and North-West Frontier Province during the year was 29,328, and the amount paid to them was £138,791, as compared with 28,521 and £137,484 in 1901–02.

During the year under review 1,088 new policies of the aggregate value of £109,370 were granted by the Postal Insurance Fund, and of these 913 were Endowment Assurance Policies, of the total value of £92,060. Ninety-seven claims, amounting in all to £9,817, were paid on the death of insured persons. At the close of 1902–03 there were 7,110 active policies in existence (2,661 held by Post Office servants and 4,449 by servants of other Departments), and the aggregate sum insured was £737,380. Seventeen life annuities were purchased by local funds for their servants under Article 807 of the Civil Service Regulations.

POST OFFICE.

During the year under review there were 32 cases in which the mails were plundered by highway robbers, of which 24 were in British territory, and 8 in Native States. The figures for the preceding year were 33 and 10 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 392, of which 187 were dealt with departmentally, while legal convictions were obtained in the remaining 205 cases. The defalcations and losses amounted to £2,310, as compared with £2,368 in 1901–02 and £2,122 in 1900–01. A sum of £1,321 was recovered from the offenders or their sureties; £205 was charged against the Post Office Guarantee Fund; and £784 remained unadjusted at the close of the year. The subscriptions to the Guarantee Fund realised from Post Office and District Post Officials during the year amounted to £2,026, and the balance at the credit of the fund at the close of the year was £60,583.

The number of complaints made by the public was 28,284, against 26,731 in the previous year — an increase which was about proportional to the increase of Postal business. In 36·9 per cent. of the whole number the complaints were ascertained to be well founded; 38·09 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year, or no definite conclusion had been arrived at.

A Field Service postal establishment was sent to Somaliland in 1903; and in Northern China 2 base offices and 5 field post offices were maintained for the British Contingent.

The Postal arrangements of the Native state of Alwar in Rajputana were amalgamated with the Imperial Post in the course of the year.

Parcel Exchange has been established with Portuguese East Africa, the Dominican Republic, the French Post Office at Tripoli, the German and Austrian Offices in Turkey, the Japanese Offices in China and Korea, and certain islands recently annexed to New Zealand, and the parcel exchange with Portugal, Madeira, and the Azores, which had been suspended on account of quarantine restrictions, was resumed during the year.

A direct exchange of parcels between India and Mauritius, in supersession of the previously existing exchange through the intermediate agency of the Post Office of Ceylon, was introduced in the course of the year.

Mail communication was established with Persia across the Baluchistan-Seistan frontier, and arrangements were also made for direct mail communication between Burma and Yunnan.

The Coronation Durbar entailed extra postal expenses amounting to about £9,000, but it is estimated that the additional receipts on account of the Durbar amounted to £20,000.

The shortest time occupied in transit by the mail from London to Bombay was 13 days 7 hours and 54 minutes, while the average time for the year was 13 days 22 hours and 51 minutes. The quickest transit from Bombay to London was 12 days 23 hours and 7 minutes, while the average time for the year was 14 days 4 hours and 40 minutes.

## TELEGRAPHS.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 56,830 miles of line, 200,267 miles of wire, and 267 miles of cable.

It is interesting to note that, during the year under review, the total number of paid messages exceeded those of any previous year by 266,549, and that, with the single exception of 1900–01, the gross receipts of the Department have been the highest on record. The working expenses were, however, also largely increased, with the result that the net revenue for the year shows a decrease as compared with that for the years 1897–98, 1899–1900, 1900–1901, and 1901–02. The reduction of the rates between India

(including Burma) and Europe, which took effect from 1st March 1902, has resulted in an increase of traffic of about 26 per cent. over that of the previous year. The loss in receipts from the reduction has not yet been ascertained. TELEGRAPHS.

During the year £328,612 was added to the capital expenditure, of which sum £104,986 was in respect of the Great Indian Peninsula Railway telegraph lines taken over by the Department. The greater portion of the balance was for buildings and new lines, the net additions to the system during the year comprising 1,003 miles of lines and 9,646 miles of wire including cable. The total capital outlay at the close of the year stood at £5,304,581.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 5,652, of which 4,353 were maintained by the Department. The net addition to the number of offices during the year was 360.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| —— | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1898-99 - | 4,195,764 | 50,306 | 154,824 | 264 | 1,634 | 2,788 | 4,422 |
| During 1898-99 - - - | 151,941 | 1,463 | 5,826 | 11 | 85 | 192 | 277 |
| „ 1899-1900 - - | *163,234 | 1,140 | 10,116 | 8 | 132 | 117 | 249 |
| „ 1900-1901 - - | 217,289 | 2,146 | 11,117 | 13 | 88 | 142 | 230 |
| „ 1901-02 - - | 247,741 | 772 | 8,721 | −13 | 67 | 47 | 114 |
| „ 1902-03 - - - | 328,612 | 1,003 | 9,663 | −16 | 45 | 315 | 360 |
| To end of 1902-1903 - | 5,304,581 | 56,830 | 200,267 | 267 | 2,051 | 3,601 | 5,652 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1902-1903, in comparison with the results of the four previous years' working, will be gained from the following statement :—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1898-99 - - - | 5,448,600 | 591,566 | 427,549 | 164,017 | 27·73 | 3·77 |
| 1899-1900 - - | 6,237,301 | 681,942 | 447,758 | 234,184 | 34·34 | 5·19 |
| 1900-1901 - - | 6,449,372 | 753,764 | 472,262 | 281,502 | 37·34 | 5·95 |
| 1901-02 - - | 6,475,545 | 730,395 | 503,338 | 227,057 | 31·08 | 4·56 |
| 1902-03 - - - | 6,742,094 | 737,211 | 528,982 | 208,229 | 28·24 | 3·92 |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India.

The total number of paid telegrams sent in 1902-03 amounted to 6,742,094, as compared with 6,475,545 in 1901-02, showing an increase of 266,549 or 4·11 per cent. There was, however, a decrease in the value of these messages amounting to £4,462 or 0·77 per cent.

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The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :—

| Class of Telegram. | 1901–02. | | 1902–03. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State - - | 802,988 | 136,947 | 858,864 | 143,574 |
| Foreign State - - - | 16,154 | 8,103 | 16,544 | 7,348* |
| Total State - - | 819,142 | 145,050 | 875,408 | 150,922 |
| Inland Private - - - | 4,763,963 | 278,106 | 4,981,794 | 291,339 |
| Foreign Private - - | 892,440 | 156,290 | 884,892 | 132,722* |
| Total Private - - | 5,656,403 | 434,396 | 5,866,686 | 424,061 |
| Total State and Private | 6,475,545 | 579,446 | 6,742,094 | 574,983 |

* These figures were affected by the opening of the South Africa direct cable route to Australia on 1st November 1901, the reduction of rates between India and Europe from 1st March 1902, and the opening of the Pacific cable (Vancouver to Australia, &c.) on 8th December 1902.

Inland private traffic shows an increase in the number of messages sent of 217,831 or 4·57 per cent. over the figures of 1901–02, the previous highest on record. The total value of these messages, however, although £13,233 or 4·75 per cent. in excess of last year's figures, is still below the value of the traffic for the years 1899–1900 and 1900–1901.

The following statement shows the development of the revenue from inland private traffic for the last 10 years :—

| | £ |
|---|---|
| 1893–94 - - - - - - | 203,486 |
| 1894–95 - - - - | 214,398 |
| 1895–96 - - - - - - | 231,687 |
| 1896–97 - - - - | 249,228 |
| 1897–98 - - - - - - | 263,573 |
| 1898–99 - - - - | 244,915 |
| 1899–1900 - - - - | 294,485 |
| 1900–1901 - - - - | 294,071 |
| 1901–02 - - - - | 278,106 |
| 1902–03 - - - - | 291,339 |

Inland State telegrams, as compared with the previous year, show an increase of 55,876 or 6·95 per cent. in number, and of £6,627 or 4·83 per cent. in value. The increase in traffic under this head is principally due to the preparations for the Coronation Durbar at Delhi, and also to the despatch of troops to Somaliland.

In Foreign Private telegrams, which include press and all foreign transit traffic, there has been a decrease of 7,548 or 0·84 per cent. in number, and a decrease in value (Indian share) of £23,568 or 15·07 per cent. The great decrease in value is due to the reduction of the rates between India on the one side and Europe, America, Asiatic Russia, Asiatic Turkey, Persia and the Persian Gulf on the other; also to the opening of the Pacific cable between America and Australia, and to increased traffic being carried viâ the cable between South Africa and Australia, instead of passing viâ India as formerly.

Foreign State telegrams, compared with the previous year, show an increase of 390 or 2·41 per cent. in number, but a decrease of £755 or 9·31 per cent. in value. The decrease in value is due to the reduction of rates between India and Europe.

In press messages there has been an increase both in number and value, inland press messages showing an increase of 15·98 per cent. in number and 18·91 per cent. in value, while foreign press messages show an increase of

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10·06 per cent. in number and 15·44 per cent. in value as compared with the figures of the previous year. These increases are principally due to the exceptional press traffic which took place during the Coronation Durbar period.

The gross receipts of the Telephone Companies during the year 1902 amounted to £31,831, an increase of £908 as compared with the previous year. Their average annual earnings during the past five years amount to £29,049.

The subscriptions to the Telegraph Department for telephone and similar services rendered during the same calendar year amounted to £11,390, being £587 more than the amount of the previous year. The average annual subscriptions for the past five years amount to £10,570. These results are the more satisfactory in view of the reduction by 25 per cent. from 1st January 1902 of the rate chargeable to the public for the rent of telephones.

Communication with Europe *viâ* Suez was maintained uninterruptedly during the year by the Eastern Telegraph Company. The Teheran route was interrupted for about 222 hours in all, as compared with 132 hours in the previous year, while the Turkish route was interrupted for 870 hours, as against 1,051 hours in 1901–02.

The proportion of international traffic to and from India, exclusive of transit traffic, over the several routes to Europe for the year 1902–03 was as follows :—

| | Per cent. | |
|---|---|---|
| | No. | Words. |
| Indo-European :— | | |
| Viâ Teheran | 48·86 | 52·69 |
| Viâ Turkey | 1·23 | 0·87 |
| Persian Gulf, viâ Karachi | 1·26 | 1·31 |
| Red Sea :— | | |
| Viâ Suez | 48·65 | 45·13 |
| Total | 100·00 | 100·00 |

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

Telegraphic communication with the Cape by the East Coast of Africa was maintained without interruption throughout the year. The restrictions placed by the British Government at Aden, Durban, and Cape Town on messages for East and South Africa during the war were entirely withdrawn towards the close of July 1902.

As regards the East, communication with the Straits Settlements was maintained uninterruptedly during the year.

The land route to China *viâ* Bhamo was interrupted beyond the Indian frontier for about 59 days in the aggregate, against 106 days in the previous year. Within the Indian frontier there was only one interruption, lasting 23 hours.

Communication with Siam over the Moulmein-Bangkok line *viâ* Kanburi was interrupted for about 31 days, as against 46 days in the previous year. The line from Moulmein to Raheng *viâ* Myawaddy was interrupted for about 12 days, as compared with four days in the previous year. There were three interruptions, lasting 4½ days, within Indian limits.

Events of interest during the year were the reorganisation of the Superior Establishment to provide for an increase in the number of higher posts and Divisional charges, and so prevent a block in promotion; the reorganisation of the Signalling and Subordinate Establishment to improve the position and prospects of the staff; the decrease of International transit traffic, due to the opening of alternative routes from South Africa to Australia and from Queensland to Vancouver; the discontinuance of reduced rates for telegrams passing between the Expeditionary Forces in South Africa and China and their friends at home; the Delhi Coronation Durbar, necessitating special measures to meet the abnormal traffic arising therefrom; and the unveiling

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by H.E. the Viceroy of the Mutiny Telegraph Memorial, erected at Delhi to commemorate the services of the Department during the Indian Mutiny.

## INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department. The system comprises two sections. The first, called the Persian Gulf Section, consists of various cables, 1,940 knots in length, running from Karachi to Bushire, Jask to Muscat, and Bushire to Fao, where a connection is made with the Ottoman Government line. It includes, also, the Mekran Coast land lines, 698 miles, with 1,392 miles of wire, running from Jask to Gwadur, and thence to Karachi.

The second section, called the Persian Section, consists of land lines, 693 miles with 2,079 miles of wire, running from Bushire to Teheran.

The Indo-European Telegraph Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

Under the terms of a Convention, dated 16th August 1901, between the United Kingdom and Persia, for extending the system of telegraphic communication between Europe and India through Persia, the construction of a line, known as the Central Persia line, from Kashan to the Baluchistan Frontier *viâ* Yezd and Kerman was commenced on 2nd December 1902, and 141·25 miles had been completed by 31st March 1903. Towards the end of the year work was somewhat delayed owing to material not arriving from the coast in time.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London in 1893, and placed under the direct orders of the Secretary of State. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

The financial results of working the Department, as compared with the four preceding years, were as follows:—

| YEAR. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1898–99 - - | 770,264 | 97,722 | 51,235 | 46,487 | 6·03 | 52·43 |
| 1899–1900 - - | 768,736 | 102,541 | 56,234 | 46,307 | 6·02 | 54·84 |
| 1900-01 - - | 771,680 | 116,825 | 56,244 | 60,581 | 7·85 | 48·14 |
| 1901-02 - - | 818,747 | 121,936 | 57,310 | 64,626 | 7·89 | 47·00 |
| 1902-03 - - | 872,730 | 99,158 | 59,853 | 39,305 | 4·50 | 60·36 |

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The increase of £53,983 in the Capital Account during the year under review is made up of an expenditure of £44,293 on the construction of the new Central Persia line, and of £9,690 spent chiefly on the purchase of stores for future needs.

The total earnings of the Department show a decrease of £22,778, as compared with the previous year. This is due principally to the reduction of the rates between Europe and India, and to the opening of the new Pacific cable, which has taken a good deal of the Australasian traffic from the Eastern and Indo-European routes. Owing also to a misunderstanding

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

with the Companies, the Department's share of the guarantee of the Government of India, in connection with the reduction of the Indo-European tariff (expected to amount to between £2,000 and £3,000), has not been included in the accounts for 1902–03.

The expenditure shows an increase of £2,543, due mainly to a larger expenditure on furlough allowances as compared with 1901–02, to the cost of the superior establishment employed on the construction of the Central Persia line, which has been charged in the accounts pending recovery from the Persian Government, and to a general revision of the General Service Clerks' Establishment.

The net result is a profit of £39,305, or 4·50 per cent. on the capital, against 7·89 per cent. realised last year. This decrease is partly due to the capital outlay on the Central Persia line, which is as yet wholly unproductive.

The number of messages forwarded during the year amounted to 178,250, being an increase of 17,172 or 10·66 per cent. over that for 1901–02.

Under the Joint Purse Agreement, the share of the Department was £19,621 less than last year, being £111,044 as against £130,665 in 1901–02. The amount paid into the Joint Purse for the year under review was £78,791.

Owing to the opening of the new Pacific Cable, the Australian traffic was considerably less than in the preceding year, the Department drawing out of the Australian Message Fund £6,289 as against £8,239. Notwithstanding this loss, the receipts for the year show an increase of £54 over those for 1889, before the Australian Message Fund Agreement was entered into.

The working of the Department for the year may be considered generally satisfactory. Delays and errors were not serious. A few faults were cut out of the cables, and great damage was done to the telegraph buildings at Manora by a cyclone. Acts of wilful damage were much more numerous during the year, involving a sum of Krans 16,456, of which Krans 50 were recovered locally, and the remainder claimed from the Persian Government.

## CHAPTER XIII.

EDUCATION. 

# EDUCATION, LITERATURE, AND THE PRESS.

### EDUCATION.

Educational institutions in India are of two classes :—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools ; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science ; law schools ; medical schools and colleges ; and normal schools for the training of teachers.

During the year 1902–03 various changes, based upon the recommendations of the Educational Conference which sat at Simla in September 1901, were carried into effect in the different provinces. Some of the more important of these are noticed below. Since the end of the period under review the Government of India have published a Resolution (Nos. 199–211, of the 11th March 1904) covering the whole field of educational policy, and embodying their conclusions upon the subjects discussed at the Simla Conference.

The publication of the report of the Indian Universities Commission, which was dated 9th June 1902, was an event of the first importance in the sphere of collegiate education. The recommendations of the Commission, which cannot be adequately summarised here, have been the subject of much criticism and discussion. Since the close of the period under review, legislation has been undertaken on the lines suggested by the Commission, but further details respecting the Act may be reserved for next year's issue of this statement.

**Bengal.** The total number of institutions in Bengal was 63,629, with 1,754,655 pupils, as compared with 61,792 institutions with 1,667,661 pupils in 1901. The increase was in the number of public institutions, private institutions having decreased by 524 during the year. Of the total number of pupils, 1,637,800 were in public and 116,855 in private institutions. The proportion of scholars to population of school-going age decidedly increased, from 27·1 to 28·2 per cent. in the case of boys, and from 1·8 to 2·2 per cent. in that of girls. The total expenditure upon education from all sources was £903,119, against £816,698 in the previous year. This amount was contributed as follows :—Provincial revenues, 21·6 per cent. ; district funds, 12·4 per cent. ; municipal funds, ·8 per cent. ; fees, 42·6 per cent. ; other sources, 22·6 per cent. The most marked increase of expenditure was under

the head of primary education (boys), which received £231,814, as compared with £203,754 in 1901. Primary schools increased from 45,922 to 47,424, and their attendance from 1,212,356 to 1,286,726. The full effect of the large additional assignment of about five lakhs (£33,333), sanctioned for primary education during the year, would appear not yet to have made itself apparent. The figures for secondary education differed little from those for the previous year. All schools which were maintained or aided from public funds had adopted the system of education approved by the Government of Bengal, under which the medium of instruction is English in the first four classes, and the Vernacular in all lower classes. As regards University education, the number and percentage of passes showed a considerable decrease in the Entrance and Arts Examinations. The B.L. examination alone showed a very large increase in the number (337) and proportion (50·8 per cent.) of passes. The number of Arts Colleges was 45, or one more than in 1901, but their attendance fell from 8,150 to 8,030. The number of girls receiving collegiate education decreased from 55 to 29. The total number of girls under instruction rose considerably, from 96,050 to 116,169, the increase being largely due to the establishment of model primary schools for girls in the several districts. Muhammadan pupils numbered 489,615, as against 462,674. The increase is very satisfactory, and it is noteworthy that it is larger, proportionately, than the increase among Hindus. Training schools for primary teachers were established during the year in each sub-division of the Province, and the number of such schools increased as a consequence from 33 to 61. Night schools numbered 1,274, with 23,741 pupils, as against 1,082, with 19,516 pupils, in 1901. The increase was chiefly caused by the establishment of "continuation schools," by the aid of a special grant, in the Presidency Division. EDUCATION.

There were in the United Provinces at the end of the year 15,013 institutions with 493,131 scholars, an increase of 653 institutions and 40,358 scholars upon the previous year. Public institutions increased by 1,224, and at the end of the year numbered 9,513, while the number of private schools decreased by 571, many being transferred from one list to the other. Primary schools showed the most marked advance. The increase in the number of pupils was mainly made up of Hindus, who contributed 39,294, while only 1,039 were Muhammadans. The percentage of children of school-going age who were under instruction was still low, being 12·76 for boys and ·63 for girls. The total expenditure on education from all sources was £339,096. The increase, as compared with the previous year, was £35,133, an amount slightly in excess of the additional grant of 5 lakhs allotted by the Government of India. The most striking and satisfactory result of the year was the stimulus given to elementary education. Primary schools for boys at the end of the year numbered 8,408, with 371,448 pupils, the increase during the year being 1,158 schools and 48,448 scholars, mostly in the lower primary division. Secondary schools for boys increased by 8 to 503, and the attendance also rose to 22,759. The number of candidates appearing for the Entrance Examination of the Allahabad University, which fell considerably short even of the previous year's low figure, was very unsatisfactory, and steps have been taken which it is hoped will bring about an improvement. The state of the University's finances also gave cause for concern. Female education showed a considerable advance, there being 658 institutions for girls, with 21,887 scholars, as against 612 with 20,821 in 1901. This branch of education, however, is still backward, and the want of qualified teachers is specially felt. The Muhammadan population did not take its due part in the educational progress of the year. The number of college students fell from 460 to 437, and the numbers at secondary schools were almost stationary. The number of Muhammadan girls under instruction fell by nearly 6 per cent. United Provinces.

The total number of public institutions in the Punjab (including Native States) fell from 3,236 to 3,230, and their attendance from 196,070 to 193,529; private institutions increased from 4,709 to 4,825, and their attendance from 74,130 to 76,010. Although these figures show a slight fall in the number of pupils, the year was one of distinct progress. The total expenditure on education in British territory was Punjab.

EDUCATION. £238,764, an increase of £21,842 as compared with the previous year. To this expenditure Imperial revenues contributed 3·5 per cent., provincial revenues 29 per cent., district and municipal funds 24·6 per cent., fees 26·4 per cent., and other sources 16·5 per cent. In Native States £12,133 was spent, 90 per cent. of which came from State revenues. There were 14 colleges in British territory and 3 in Native States, with a somewhat diminished number of students. The number of secondary schools in British territory also fell, from 385 to 332, and the number of pupils from 65,474 to 59,961. The decrease in the number of secondary schools is largely due to the introduction of revised rules for the recognition of schools, and the consequent non-recognition of many inefficient institutions: the decrease was entirely in Anglo-Vernacular schools. In Native States secondary schools increased from 49 to 51, and pupils from 7,521 to 7,604. Primary schools showed a total increase of 49, and the number of pupils rose by 2,833 to 121,831. The attendance at schools for special instruction increased considerably, to 2,356, showing the existence of a desire for something more than a literary education. The number of candidates appearing for the various Arts Examinations of the Punjab University was 885, as against 984 in 1901, and the percentage of passes also fell. There was a noticeable decrease in the number of students taking Law Examinations, and a corresponding increase in the number studying medicine. Female education showed an advance from 15,178 to 15,546 in the number of girls attending public schools, but the total number of girls under instruction fell from 26,580 to 25,309. The number of Muhammadans receiving instruction increased from 111,350 to 111,616. The numbers of Hindus and Sikhs, however, fell slightly, to 104,721 and 22,439 respectively. Practical education has been greatly encouraged by the introduction during the year of agricultural, clerical and commercial, and other similar courses, in certain secondary departments, and by increasing the attention given in primary schools to such subjects as map-drawing, mental arithmetic and elementary agriculture.

Burma. In Burma, the statistics on the whole indicate progress. The total number of institutions, public and private, rose from 18,284 to 18,931, and the attendance from 316,250 to 331,525. More than a half of the pupils were in public institutions. The total expenditure rose considerably, from £119,711 to £151,600. Of this increase £1,219 was borne by provincial funds, £1,789 by local funds, £5,878 by municipal funds, £14,792 by fees, and £8,211 by "other sources." The Rangoon College showed an attendance of 160, as against 133 in 1901, and of its candidates 11 out of 17 were successful in the B.A. and 16 out of 58 in the F.A. Examination. There were in all 4,614 primary schools, with 135,743 pupils, and 374 secondary schools, with 35,249 pupils. These figures show in each case a considerable advance on 1901, and as regards primary education they are more satisfactory than for some years past, especially when the primary departments of secondary schools are taken into account. The opening of Government Model Primary Schools will, it is hoped, do much to advance this branch of education. Female education made good progress. The number of girls attending public institutions rose from 36,755 to 38,492, and 4,125 attended private institutions. As regards special races, Muhammadan education was said to be not very hopeful, and the Karens to need considerable stirring up. A beginning was made in the Shan States by opening a school for the sons of *Sawbwas* at Taunggyi, and a Government school was opened in the Chin Hills. Educational work among the Kachins promised well. The itinerant teacher system, which was introduced in 1893, continued to show very satisfactory results in the direction of extending primary education. At the end of 1902 there were 170 itinerant teachers, and more were said to be needed.

Central Provinces. In the Central Provinces the year was one of considerable educational progress. The number of schools, including those in Feudatory States, increased from 2,563 to 2,587, and the number of scholars from 142,720 to 158,332, these figures being the highest yet attained. The increase is partly attributable to greater general prosperity, but was mainly due to the opening of infant classes in a large number of schools. The percentage of scholars

among all children of school-going age was 8·8, as against 8 per cent. in 1901. In British territory the percentage was 18·2 among boys and 1·1 among girls. The total expenditure in British territory was £81,415, as compared with £68,752 in the previous year. Of this, 33·7 per cent. was met from provincial funds, 34·7 per cent. from district funds, 7·6 per cent. from municipal funds, 10·7 per cent. from fees, and 13·3 per cent. from other sources. Different classes of education shared as follows :—Collegiate education, 4·9 per cent.; secondary education, 19·9 per cent.; primary education, 39 per cent.; technical education, 5·3 per cent. Secondary schools decreased during the year by 3, and their attendance by 55. Primary schools, however, increased from 1,853 to 1,867, and their strength from 109,660 to 122,413. Special attention was given to the introduction and teaching in primary schools of agriculture and other practical subjects. The average number enrolled in colleges rose from 270 to 277, but owing to the closing of the colleges when plague became epidemic, the results of the University examinations were inevitably poor. The number of girls' schools, in British territory, fell from 175 to 173, but their attendance rose considerably. Important measures undertaken during the year were the provincialisation of girls' schools, which had been hitherto under the management of local bodies, and the establishment of a female normal school at Nagpur. Good progress was made in giving effect to the recommendations of the Simla Educational Conference. The conversion of Aided and Combined System Schools in rural tracts into Board Schools, and the improvement of the pay of primary teachers, have so far been attended with good results. The special grant of two lakhs (£13,333) made from Imperial revenues was largely spent in the erection of new school buildings and in carrying out much-needed repairs. EDUCATION.

The number of public institutions in Assam was 3,101, and the number of pupils 101,097, as against 3,171 institutions, with 102,463 pupils in 1901. The decrease was mainly under primary schools, and was largely due to the closing of inefficient village schools. The attendance of private institutions increased from 5,557 to 6,792. The percentage of scholars among all children of school-going age was 11·5; for boys, the percentage was 20·8. The total expenditure during the year was £53,415, as against £50,874 in the previous year. Of this, £16,579 was borne by provincial revenues, £15,445 by local and municipal funds, £11,816 by fees, and £9,575 by private sources. Primary schools for boys numbered 2,722, with 81,191 pupils, as against 2,776 schools, with 83,214 pupils, in 1901. Secondary schools increased from 146 to 148, and their attendance from 14,027 to 14,567. The two second-grade colleges in Assam sent up 62 candidates for the First Arts examination, of whom 22, including six Muhammadans, were successful. At the close of the year the Syndicate of the Calcutta University removed a considerable disability from Assamese candidates by accepting the proposal for the inclusion of Assamese and Khasi among the subjects for the entrance examination. As regards female education, there was a marked decline; the total number of girls under instruction fell from 8,496 to 7,355, and the percentage of scholars to girls of school-going age from 1·98 to 1·71. Instructions were issued, in accordance with the recommendations of the Simla Conference, that the Vernacular should replace English as the medium of instruction in high schools in all classes before the fourth. A scheme for the improvement of lower primary education was embodied in a Resolution promulgated in March 1903, the chief feature being the grant to competent teachers of fixed pay, supplemented by capitation grants, in place of the rewards formerly paid on the result of examinations. ASSAM.

In Berar the year was on the whole unfavourable to the progress of education. Bubonic plague prevailed in three out of the six districts, and the brisk marriage season at the end of the year also diminished the school attendance. The total number of schools rose from 1,150 to 1,178, and the number of pupils from 53,379 to 53,923, but the increase in the number of schools was confined to aided indigenous schools, and only District Board, aided, and unaided schools showed an improvement in attendance. The percentage of pupils among population of school-going age was 24·3 for boys and 1·4 for girls, as against 24·0 and 1·5 in the previous year. Of the whole number of pupils, 64·4 per cent. were in the lower primary stage, as BERAR.

EDUCATION. compared with 65·1 per cent. in 1901. The total expenditure incurred during the year was £34,362, an advance of £2,629 on 1901; the increase was largely due to the construction of a number of new school buildings, and to the inclusion of the figures of expenditure on mission boarding houses. The total receipts from all sources amounted to £30,282, or £472 more than in 1901. There were 28 secondary schools, of which 26, with an attendance of 3,196, were under Government management. District Board schools for boys decreased from 568 to 547, although their attendance increased slightly, and Municipal schools remained stationary. The decrease of 21 schools was attributed to the lingering effects of the last great famine. Female education was still very backward. The number of primary schools for girls decreased from 48 to 46, though the total number of girls in these schools increased by 22 to 2,900. There were also five girls attending the Anglo-Vernacular schools. Muhammadan pupils numbered 7,621, against 7,736 in the previous year, the decrease being due to plague. The number of low-caste pupils in all classes of schools rose from 2,552 to 2,602, and the numbers examined and passed showed a substantial increase, to 1,126 and 712 respectively.

Coorg. Coorg had at the end of the year 85 public schools, with 4,216 pupils, the latter total being somewhat less than that for the previous year. With three exceptions, one normal and two secondary schools, all were primary schools. Private schools numbered 31, and their attendance was reported to be 546, a substantial increase. The percentage of scholars among the population of school-going age was 16·2 for boys and 4·7 for girls. The total expenditure was £2,786, or £121 more than in 1901, the additional outlay being devoted to primary education. Various changes were decided upon as a result of the Simla Conference, the most important being the substitution of examinations to be conducted *in situ* for the existing primary and lower secondary tests.

North-West Frontier Province. The number of public institutions in the North-West Frontier Province rose from 191 to 199, and of pupils from 12,955 to 13,468. The number of private schools continued to decrease, falling during the year from 927 to 827, and their attendance fell from 13,626 to 12,378. The decrease was entirely in the number and strength of schools teaching the Qurán by rote. The total number under instruction constituted 8 per cent. of the population of school-going age. The total expenditure was £10,844, an increase of £646. The income from fees showed a proportionate increase, from £2,069 to £2,193. The Edwardes Church Mission College at Peshawar had 20 students, as against 17 in 1901. Secondary schools fell from 28 to 26, but their attendance increased from 5,082 to 5,174. Primary schools for boys numbered 164, or 10 more than in the previous year, with an increased attendance of 7,681. The number of girls under instruction rose from 1,900 to 2,104. Of these 593 attended the eight primary schools for girls, the remainder being mainly in private schools.

Madras. The total number of educational institutions, public and private, of all grades, fell slightly during the year, the falling off being chiefly in lower primary schools, but the average number on the rolls, counting all classes of institutions, rose from 830,833 to 847,525. Of the total population of school-going age, 26·6 per cent. of the boys and 4·6 per cent. of the girls were under instruction. The proportion of scholars to population of school-age varied in different districts from 58·8 (Madras) to 7·4 (Vizagapatam), the general percentage being 15·4 as against 15·0 last year. The proportion of scholars in the lower primary stage was 83·5 per cent. of the total number, as against 84·2 per cent. last year. The expenditure on public instruction from all sources rose from £510,734 to £565,430, of which £176,141 was provided by Government, £59,629 by district boards, £17,630 by municipal councils, £166,114 from fees, and £145,916 from endowments and miscellaneous receipts. Of this expenditure 10·96 per cent. was devoted to collegiate education, 57·30 per cent. to general, and 6·79 per cent. to special school education. First grade and second grade colleges numbered respectively 11 and 29, as in 1901, but the number of students increased considerably. The three colleges specially intended for women had 17 students, while 24 women attended the men's colleges. The number of candidates admitted to degrees in the several faculties of the Madras University was 676, an

advance of 14 on 1901–02. For the M.A. examination 8 candidates out of 24 were successful. Upper secondary schools for boys increased by four, and the number of boys in this stage also rose from 18,762 to 20,129. In the lower secondary stage there were, in all classes of institutions, 39,791 boys, an increase of 3,000 during the year. There were 25 upper and 166 lower secondary schools for girls. The latter figure shows a decrease of six on the previous year, but the attendance at each class of school increased. The total number of girls in the secondary stage of instruction increased during the year from 4,066 to 4,213. The number of public primary schools fell somewhat, from 19,093 to 18,637 in the case of boys' schools, and from 782 to 769 in the case of girls' schools, but the attendance at these schools increased considerably. The fall in the number of schools was largely due to the stricter enforcement of the rules of recognition and to consolidation of existing schools. The total numbers of boys and girls in the primary stage of instruction were, respectively, 565,217 and 114,752, as against 558,613 and 112,933 in 1901. Technical, industrial, and art schools increased in number, but their strength decreased slightly. At the Government technical examinations there was an increase both in the number of candidates and in the proportion of successes. Training schools showed satisfactory progress, and over a thousand candidates qualified for the trained teacher's certificate. Steps were taken during the year to carry out such of the approved suggestions of the Simla Conference as were immediately feasible. The most important measures were the appointment of a Deputy Director of Public Instruction and the strengthening of the inspecting staff. EDUCATION.

The educational record of Bombay for 1902–03 shows the effects of the more than usually severe visitation of plague during this year. Excluding private institutions, for which the returns are not entirely trustworthy, there was a decrease of nearly 40,000 in the total number of pupils at the close of the year. These figures, however, are somewhat misleading, as a large number of schools were temporarily closed, on account of plague, at the end of the year. That real progress was made is shown by an increase in the average monthly attendance and in the number of public institutions. The total number of educational institutions in Bombay and Sind was 12,218, with an attendance of 599,708, the figures for the previous year being 12,251 and 639,868; of these, 9,595 institutions, with 530,286 pupils, were public. The total expenditure from all sources rose from £518,498 to £547,785. There were 10 Arts Colleges, and 5 professional colleges, as in 1901, with a slightly increased total attendance of 3,068 students, of whom 657, including 46 women, were at the Grant Medical College. Technical schools and colleges generally showed an increased number of students. Night schools, however, further decreased in number from 107 to 100. Secondary schools for boys fell by 5 to 422, but primary schools increased from 8,219 to 8,260; the attendances in the two classes of school were respectively 41,239 and 428,782, a considerable fall in either case. The total expenditure on secondary education for boys was £115,087, and on primary education £205,400; to these sums, which are larger than the figures for 1901, provincial revenues contributed £23,380 and £60,905 respectively. The total number of girls under instruction during the year was 89,674, of whom 72,058 were in primary schools and 34,808 in the lowest stage. In Arts Colleges and other special schools there were 289 female students, 174 of whom were in training schools. The total expenditure on female education fell from £51,726 to £44,783, the contribution from provincial revenues being £8,331. The number of Mahomedans under instruction was 129,711, as against 134,809 in the previous year, of whom 96 per cent. were in primary schools. There was, however, a marked increase in the number of successes in the Matriculation and Intermediate Examinations. The Yeràvda Reformatory School had an average daily attendance of 125. The general behaviour was satisfactory, and of the 25 boys discharged during the year 22 were found to be engaged in honest work. Among the objects on which was spent the assignment of £40,000, made to the Bombay Presidency for educational purposes as a result of the Simla Conference of 1901, were the appointment of two Inspectresses of schools, the building of a Vernacular training college at Poona, the creation of a college for training secondary teachers, and the provision of hostels in connection with several Government high schools. Bombay.

LITERATURE.

## LITERATURE AND THE PRESS.

| — | English. | Bi-lingual (English and another Language). | Sanskrit. | Arabic. | Persian. | Urdu. | Hindi | Bengali. | Punjabi. | Marathi. | Gujarathi. | Tamil. | Telugu. | Burmese. | Kanarese. | Assamese. | Uriya. | Bi-lingual (Oriental) in a Classical and Vernacular Language. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Madras | 350 | 61 | 123 | 3 | — | 7 | — | — | — | — | — | 292 | 237 | — | 24 | — | 12 | |
| Bombay | 67 | 30 | 34 | 1 | 3 | 22 | 40 | — | — | 128 | 266 | — | — | — | 16 | — | — | 70, mostly Sanskrit and Hindi or Gujarathi. |
| Bengal | 368 | 117 | 76 | — | 5 | 27 | 136 | 1,201 | — | — | — | — | — | — | — | 37 | 162 | 177, mostly Sanskrit and Bengali. |
| United Provinces. | - | - | - | - | - | - | Figures not available | - | - | - | - | - | - | - | - | - | - | (Total number of publications, 1,461.) |
| Punjab | 73 | 17 | 14 | 27 | 23 | 521 | 66 | — | 350 | 1 | — | — | — | — | — | — | — | 73, including 29 Arabic-Urdu. |
| Burma | 5 | 9 | — | — | — | — | — | — | — | — | — | 1 | — | 47 | — | — | — | 47 (Pali and Burmese). |
| Central Provinces. | 4 | 2 | 2 | — | — | — | 21 | — | — | 10 | — | — | — | — | — | — | — | |
| Assam | 2 | 1 | — | — | — | — | — | 6 | — | — | — | — | — | — | — | 20 | — | |
| Mysore | 3 | — | — | — | — | 1 | — | — | — | — | — | 1 | — | — | — | — | — | (Also 33 unclassified works in one or more Indian languages.) |

*Note.*—The figures for Madras include 349 periodicals, and those for the Punjab 63 periodicals; in other Provinces books alone are shown.

The above table gives concisely the number of publications registered throughout India in European, Eastern classical and the principal Indian vernacular languages. The number of bi-lingual and polyglot works, however, makes classification difficult. In Madras the total number of works in more than one language was 144, but how this number was made up does not appear. Other languages in which books were published during the year were Malayalam (41), Tulu, Konkani, Sourashtra and Badaga (in Madras); Zend (in Bombay); Ao-naga, Lepcha, Mundari, Musalmani-Bengali (50), Nepalese, Santali and Tibetan (in Bengal); Kashmiri, Marwari and Pashto (14) in the Punjab; Pwo-karen, Sgaw-Karen, Shan, Kachin and Talaing (in Burma); Manipuri (in Bengal and Assam); Khasi (in Assam); Sindhi (in Bombay and the Punjab); and Pali (in Bengal and Burma).

**Bengal**

The number of publications received in the Bengal library was 3,366, as compared with 3,069 in 1901. This total included 2,415 books, of which 2,111 were original, and 951 periodicals. As regards language, Bengali claims a large majority of publications, English coming next. The output in Uriya and Hindi was also considerable. As in the previous year, religion was the most popular subject, being represented by 440 original publications, and 139 republications and translations. Language, poetry, fiction and mathematical science followed next in order, and history and drama were also fairly represented with 90 and 76 original publications respectively. Among translations, a Bengali version of "King Lear" is noted. In the field of original drama there were few productions of merit, and the numerous "social farces" especially were of a low type. One of the latter, however, "Avatár" (Incarnation), a protest against the new pseudo-Vaishnavism, by Bahr Amrita Lál Basu, was said to be well written and to be calculated to serve a useful purpose. Fiction, with 126 original works, showed a considerable advance, but the average Bengali novel of the new school appears to be anything but elevating, and its influence is regarded with some apprehension. The perversion of western thought which is so frequently conspicuous was characteristically shown by the novelist who derived a bigamous hero from Schopenhauer, and justified his own indelicacies by quoting from Ruskin that whatever is fit for existence is also fit for art. The output of poetry consisted in the main of lyrics and sonnets, showing as a rule English influence.

**United Provinces.**

The total number of publications in the United Provinces was 1,461, of which 1,034 were original works. The subjects most in favour were religion (384), language (213), poetry (198) and fiction (111). Some really scholarly work in Sanskrit was produced during the year, and Mahomedan scholars also did good work, chiefly in translation. The output of poetry, and of Hindi verse in particular, was of poor quality. The influence of Bengali literature upon Hindi literature and language was very marked, and is not regarded as altogether an influence for good. A noticeable feature of Urdu fiction was the tendency to introduce freely, in imitation

of English novels, the practice of courtship, in spite of its being altogether foreign to the customs of the country. The old-fashioned fairy-tale has been replaced by a form of fiction describing a state of society which has no existence in fact. A noteworthy production was Pandit Sudhakar Dwivedi's complete text, with commentary, of the *Brahmasphutasiddhanta*, the great astronomical work of the seventh century. Among other translations, an Urdu version of "Mrs. Caudle's Curtain Lectures" is recorded. LITERATURE.

The total number of books and periodicals catalogued in the Punjab during the year was 1,233 (1,170 books and 63 periodicals), as against 1,204 in 1901. As in previous years, Urdu and Punjabi works largely predominated. As regards subject, poetry and religion, with 373 and 331 works respectively, accounted for more than half of the total output. Fiction (with 56 works as against 76 in 1901) and drama (with 11 against 33) both showed a decline. The year was marked by an increase in the proportion of books of real worth. Poetry, however, showed no improvement, and the drama continued to deteriorate. The novel is improving, but its motive is still often insignificant, and the characters are seldom lifelike. Of the periodicals, a majority (38) were devoted to legal subjects. Punjab.

The total number of publications registered was 1,162, a decrease of four on 1901–02, but the number in English rose from 395 to 411. Of these publications 1,035 were original. Newspapers and periodicals numbered 349. Nearly one-third of the publications were of a religious nature, and 300 were educational in their aim. The number of Uriya works increased from 3 to 12, and books in the Sourashtra and Badaga languages appeared for the first time. The year's productions showed no marked improvement as regards literary merits, but a very noticeable feature was the increased number of works dealing with social reform and, in particular, with marriage customs and the position of women. There were numerous imitations or adaptations, in almost all cases weak and imperfect, of western works. Among the models chosen may be noticed "Comus," "Ivanhoe," and "Sherlock Holmes." "Kamala's Letters to Her Husband," a work which appears to owe much to "An Englishwoman's Love-Letters," was said to show literary merit, and was very favourably received. Other productions of interest were *Tani Pasura Togai*, which introduced a novel species of Tamil poetical composition known as "Kanji," similar in structure to the sonnet, and the "Boer Leader Series" by an anonymous writer with pro-Boer leanings. Madras.

The year's literary output in Bombay showed no feature of special interest. The total number of publications registered increased from 1,288 to 1,334, of which 701 were books. Of the latter, 67 were written in English, 266 in Gujarati, and 128 in Marathi. Among both books and periodicals, the greatest number of productions came under the head "miscellaneous"; poetical and religious works come next in order, considerably ahead of any other class. The number of works of fiction fell from 42 to 35. A "History of the Prakrit and Marathi Languages," by Mr. N. B. Pavgi, showed considerable erudition, and was expected to rank as a classic. Translations of Lubbock's "Use of Life" appeared during the year in both Gujarati and Marathi. They are said to be too literal, in one case so much so as to be hardly intelligible. A translation into Hindi of Bacon's Essays is also recorded: the translator omits the passages, including 22 entire essays, which he considers to be unsuitable for Indian readers. Bombay.

In Burma 123 publications were registered, of which 57 were classed as "religious." As regards language, Burmese and Pâli-Burmese, with 47 each, claimed the large majority. Assam produced altogether 37 books, as against 22 in the preceding year. Of these, 10 dealt with the subject of language. The publications in other provinces call for no comment: in Coorg none were registered. Other Provinces.

# CHAPTER XIV.

EMIGRATION.

## EMIGRATION AND MIGRATION.

### EMIGRATION.

Emigration.

Emigration from India, so far as it is brought under the cognisance of Government, is mainly regulated by Act XXI. of 1883 and the Rules issued under its provisions. Emigration to Ceylon, the Straits Settlements, and for employment under Government in East and Central Africa, is, however, excepted from the restrictions of the Act. By Section 8 of this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of Indian immigrants. A similar protection was extended by Act X. of 1902 to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. The Local Government is now empowered, before permitting such emigration, to impose such terms and conditions as it considers to be necessary in each case. Emigration otherwise than under contract to labour or work in one of the above capacities is not controlled by legislation.

Calcutta.

Two new measures of some importance received the sanction of the Government of India during the year under review. These were the recruitment of Indian labourers, at an increased rate of pay and under approved regulations, for work in the Natal mines, and the extension of the system of indenture to female emigrants for Mauritius, in which colony it had hitherto been the practice to indenture only male emigrants.

There were seven emigration agencies at work during the year, six representing British Colonies and the remaining one the Dutch Colony of Surinam. Recruitment for Jamaica, which had been suspended during 1901, was resumed. The total number of labourers requisitioned fell from 11,290 in 1901 to 10,455 in 1902, the numbers required for Demerara and Surinam being less by one half. Natal, on the other hand, showed a greatly increased demand of 2,770, as against 770 in the previous year. The number of recruiting licences granted was 1,415, as compared with 1,283 in 1901; there was a satisfactory decrease in the number subsequently cancelled, which amounted to only 2·6 per cent. of the whole. The recruiters employed collected during the year 13,807 emigrants, this number being contributed by the different provinces in the following proportions:—United Provinces, 62·9 per cent.; Central Provinces and Ajmere, 17·3 per cent.; Bihar, 10·1 per cent.; Bengal, 6·8 per cent.; and Punjab, 2·9 per cent. Recruiting operations were extended to Ajmere for the first time, and 63 emigrants came from that district.

The number of emigrants admitted to the Calcutta depôts was 12,059. Of the remainder, 751 were rejected subsequent to registration as unfit to emigrate, while 463 were discharged as surplus. The general sanitary arrangements of all the depôts were satisfactory throughout the year, the agents showing, as usual, a welcome readiness to accept and act upon advice given them by the medical officers. The percentage of emigrants rejected as unfit for despatch to the Colonies, viz., 7·4, indicated that there was still room for improvement in the medical examination of emigrants in the mufassal. After deducting casualties of all kinds, there remained 11,179 emigrants available for despatch to the Colonies, of whom 10,882 were shipped during the year, as against 11,951 in 1901. They were distributed as follows: Natal, 2,907; Trinidad, 2,341; Demerara, 1,968; Fiji, 1,558; Surinam, 1,322; Mauritius, 786. The demand from Jamaica was met by the embarkation of 653 labourers in February 1903. The total number shipped included 7,176 men and 2,930 women. The number of returned emigrants who re-emigrated was 435. The death rate on the ships carrying emigrants was somewhat heavier than in 1901—1·19 as against 1·06 per cent., but there was no serious outbreak of disease.

The number of emigrants who returned from the several colonies was 4,236, their ascertained aggregate savings amounting to £51,652. The average

savings per head varied from over £18 in Fiji and Natal to £2 in Mauritius. Only two emigrants returned from Réunion and none from Surinam. EMIGRATION.

The amounts remitted to India by emigrants resident in the Colonies again indicated a very high degree of prosperity among the Indian population in Natal, the average remittance per emigrant from that Colony having risen in 1902 to nearly 30*s*., Fiji coming next with an average remittance of less than 3*s*. The remittances from other colonies were, in comparison, insignificant.

The numbers of emigrants embarking from Madras for Natal and Mauritius respectively were 4,094 and 1,785, as against 6,576 and 3,599 in 1901. The falling off in numbers was attributed to the favourable character of the season. The bulk of the emigrants came from the North Arcot and Madras districts. There was no emigration to the French colonies during the year. Recruitment for Fiji began in November 1902, but no emigrants embarked before the end of the year. Over £11,500 was brought with them in savings by 857 emigrants who returned from Natal. Madras.

As regards non-regulated emigration, the decrease in the number of emigrants to the Straits Settlements which was noticed in 1901 continued during the year under review, when only 19,622 emigrants embarked, as against 27,950 in 1901. There was also a decrease in the number of passengers for Burma and Ceylon, but in these cases it was impossible to distinguish real emigrants from ordinary passengers.

General emigration from the port of Bombay was still prohibited during 1902, and, owing to the demand for Indian labour in East Africa having ceased with the completion of the Uganda railway, very few (117) emigrants left Karachi, while 7,117 returned. Only 61 persons left the port of Bombay under the Emigration Act, of whom 32 went to Bulawayo as waiters, and 14 to Chindi as artisans. Bombay.

## MIGRATION.

Assam imports from the other provinces of India the greater part of the labour force employed on tea-gardens, in the oil refinery at Digboi, in coal-mines, and in a few saw-mills in Upper Assam. The total labour population directly dependent on these industries numbered 650,937 at the end of June 1903, the year for which labour statistics are tabulated now ending at this date. The number of labourers engaged under Act VI. of 1901 was 93,278, while 557,659 were classed as "non-Act" labourers. Of the total labour force in the province 30 per cent., including almost all of the "Act" labourers, were employed in the Assam valley, and the remainder in the Surma valley. Immigration from the Central Provinces showed a further increase during the year under review, but the bulk of the labour population still came from Chota Nagpur and the Sonthal Parganas. There was a large increase, however, in the number of immigrants, especially "non-Act" immigrants, from Bengal proper and Orissa. The total number of labourers and dependants imported during the year was 26,684, as against 26,223 in 1901 and 62,733 in 1900. The rate of immigration during the last two years was much below that of former years, and less than what is required to maintain an adequate labour force. The falling off in recruitment was no doubt due in large measure to improved agricultural conditions in the recruiting districts, but it was also attributed by planters to the stringency with which the provisions of Act VI. of 1901 had in some districts been applied. Although the tea industry had not altogether recovered from the recent depression, there was a general complaint of the shortness of the [illegible] labour. Statistics indicated a general tendency to abandon Act VI. of 1901 as a basis for labour contracts executed in the province, and to make use instead of agreements enforceable under Act XIII. of 1859. Assam.

Of the 14,076 adults imported during the year under the Act, 7,988 were recruited by sardars and 6,088 by contractors. There was a rise from 4,340 to 6,097 in the number of sardars who were granted certificates, apparently due to the fact that managers anticipated considerable difficulty in recruiting coolies, and this method of recruitment proved ineffective and expensive, only four coolies being recruited on the average for every three sardars employed.

MIGRATION. There were 594 deaths among all classes of immigrants during transit by way of the Brahmaputra to the Assam valley, the large majority being due to cholera. Of the coolies imported into Sylhet and Cachar, rather more than a half were conveyed by the Assam-Bengal railway, the remainder by steamer. There were no deaths among the coolies in transit by railway, and only one death on the steamers.

The number of complaints of fraud and irregularity in recruitment fell from 63 to 48, owing probably to the more effective control exercised over recruiters under the provisions of the new Act.

The registered rate of mortality for the total labour force was practically the same as for 1901, viz., 25·4 per mille. The death rate among labourers engaged under Act VI. of 1901 rose from 37·2 to 40·3 per thousand.

During the year 666 complaints were preferred by coolies against managers, a large number alleging the application of pressure with the object of inducing coolies to renew their contracts. Complaints of assault numbered 20, five being compounded and two ending in conviction. The number of coolies sentenced upon charges of intimidation, assault or rioting, was 90, of whom nearly a half were concerned in a serious case which occurred in the Lakhimpur district in July 1902. Desertions among "Act" coolies decreased from 4,030 to 3,062.

Central Provinces. Emigration from the Central Provinces received a considerable impetus during the year, 6,709 emigrants and 8,580 dependants being recruited. Nine-tenths of the emigrants came from the Chhattisgarh Division. The census figures indicate that there has been little or no immigration into the Central Provinces of recent years.

Burma. The total number of immigrants entering the ports of the province was 142,824, 128,884 at Rangoon and 12,745 at Akyab. Emigrants numbered in all 135,035.

Madras. The number of passengers arriving at the several ports of the Madras Presidency was 229,169, of whom 111,222 came from Ceylon and 64,345 from Burma.

Bombay. There was practically no movement of people into the Bombay Presidency beyond the ordinary influx of temporary labourers for the yearly harvests. The Cutchis and Marwaris, who had invaded Sind in large numbers on account of the drought, nearly all returned to their native places.

# CHAPTER XV.

## TRADE AND MANUFACTURES.



*(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)*

### TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1903, was valued as follows :—

| | 1898-99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|---|
| BY SEA. | £ | £ | £ | £ | £ |
| Private Imports : | | | | | |
| Merchandise - - | 45,586,894 | 47,141,242 | 50,851,923 | 54,345,986 | 52,525,272 |
| Treasure - - | 11,922,638 | 13,972,342 | 10,975,739 | 13,098,920 | 16,837,152 |
| | 57,509,532 | 61,113,584 | 61,827,662 | 67,444,906 | 69,362,424 |
| Private Exports : | | | | | |
| Foreign Merchandise re-exported - - | 2,247,464 | 2,194,994 | 2,139,021 | 2,173,211 | 1,957,075 |
| Indian Merchandise - | 72,900,185 | 70,455,797 | 69,440,332 | 80,803,375 | 83,919,834 |
| Treasure - - | 4,938,787 | 5,300,028 | 4,982,970 | 5,641,711 | 5,873,341 |
| | 80,086,436 | 77,950,819 | 76,562,323 | 88,618,297 | 91,750,250 |
| Government Transactions : | | | | | |
| Imports { Stores - | 2,480,791 | 3,061,745 | 3,077,803 | 4,841,047 | 4,687,504 |
| Imports { Treasure - | 7,771 | 10,115 | 5,408,769 | 635,304 | 41,727 |
| Exports { Stores - | 52,168 | 71,423 | 233,024 | 286,941 | 387,490 |
| Exports { Treasure - | 2,160 | 4,231 | 4,501,960 | 2,005,529 | 565,084 |
| | 2,542,890 | 3,147,514 | 13,221,556 | 7,768,821 | 5,681,805 |
| Total Trade by Sea - | 140,138,858 | 142,211,917 | 151,611,541 | 163,832,024 | 166,794,479 |
| BY LAND. | | | | | |
| Imports - - | 4,053,886 | 4,692,714 | 4,732,855 | 5,167,463 | 4,580,068 |
| Exports - - - | 3,486,489 | 3,720,555 | 4,380,463 | 4,405,609 | 3,993,199 |
| Total Trade by Land | 7,540,375 | 8,413,269 | 9,113,318 | 9,573,072 | 8,573,267 |
| Excess imports of treasure by sea - | 6,989,461 | 8,678,198 | 6,899,578 | 6,086,984 | 10,440,454 |
| Net excess of exports over imports of merchandise and treasure by sea, private and Government - - | 20,142,670 | 13,841,029 | 10,983,073 | 17,989,510 | 18,611,169 |
| India Council Bills paid in India - - - | 18,883,879 | 18,703,761 | 12,824,491 | 18,535,842 | 18,724,021* |

* As in previous years, the amount actually paid during the year in India is given in pounds at Rs. 15 to the pound. The figures for the two last years include sums of £1,939,093 and £263,000 respectively drawn against the Gold Reserve Fund. The Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1902–03 yielded £18,499,947.

Foreign seaborne trade.

This summary shows an increase in the total seaborne trade amounting to rather more than £3,000,000, or nearly 2 per cent., as compared with the trade of the previous year 1901–02; but putting aside the Government

TRADE. transactions, the private trade in merchandise and treasure amounted to £161,113,000, which is more than 3 per cent. above the 1901–2 figure. The total of imports and exports of merchandise on private account shows an increase of about £1,000,000 as compared with the preceding year; a result which is due to a considerable increase in exports, only partially balanced by a decrease in imports. So far as concerns exports these results are very satisfactory, in view of the fact that the year was not wholly favourable for some crops. The fall in imports is held to be due partly to the speculative import of cotton and other classes of goods in the preceding year in excess of the consuming capacity of the people, and partly to the effect of plague. There was no financial stringency, and the Bank rate, for the fourth year in succession, never rose above 8 per cent., at which level it remained only for about one month; while the exchange rate showed practically no fluctuation.

Imports. It will be seen from the figures relating to private merchandise which are given below, that the chief fluctuations in the import statistics were a heavy fall in cotton manufactures, after excessive imports in the previous year, a decline in yarns, and a smaller trade in woollens for the second year in succession. Fresh restrictive regulations directed against bounty-fed sugar, which were in force during nine months of the year, explain the fall under that head; the principal decrease among raw materials was of Chinese silks; silk manufactures, on the other hand, almost regained the high figure of 1900–01. The increase under the head of metals is due almost entirely to copper imports, which increase as the prosperity of the people grows, though they have not yet attained the figures recorded before the famines.

| Imports. | 1898–99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Cotton woven goods - | 16,459,000 | 18,001,000 | 18,231,000 | 20,165,000 | 18,766,000 |
| Cotton yarns - - | 1,701,000 | 1,633,000 | 1,659,000 | 1,765,000 | 1,532,000 |
| Silk, raw and manufactured | 1,439,000 | 1,137,000 | 1,788,000 | 1,530,000 | 1,456,000 |
| Woollen goods - - | 1,016,000 | 1,172,000 | 1,408,000 | 1,313,000 | 937,000 |
| Metals - - - | 3,453,000 | 3,121,000 | 4,288,000 | 4,599,000 | 5,331,000 |
| Hardware and cutlery - | 953,000 | 1,060,000 | 1,228,000 | 1,138,000 | 1,333,000 |
| Machinery and millwork - | 2,039,000 | 1,695,000 | 1,505,000 | 2,004,000 | 1,869,000 |
| Railway material - - | 1,883,000 | 1,851,000 | 894,000 | 1,024,000 | 1,074,000 |
| Liquors - - - | 1,097,000 | 1,065,000 | 1,078,000 | 1,110,000 | 1,180,000 |
| Provisions - - - | 1,021,000 | 1,125,000 | 1,317,000 | 1,323,000 | 1,227,000 |
| Sugar - - - | 2,678,000 | 2,251,000 | 3,770,000 | 3,901,000 | 3,503,000 |
| Mineral oils - - | 2,163,000 | 2,120,000 | 2,306,000 | 2,558,000 | 2,310,000 |
| Chemicals, medicines, dyes | 1,147,000 | 1,065,000 | 1,230,000 | 1,306,000 | 1,333,000 |
| Apparel - - | 920,000 | 976,000 | 1,026,000 | 1,129,000 | 1,088,000 |

Exports. The exports of Indian merchandise consist largely of raw agricultural products, and are therefore dependent to a large extent on the seasons. In the year 1902–03 there was great abundance of rice, and a remarkably large export, but the wheat crop of the spring of 1902 was not good, and the wheat exports, though exceeding those of the last three years, were only moderate in amount. The cotton crop was large, but jute was deficient, and the yield of oilseeds available for export was much below the figures for 1901–02. There was a considerable trade in cotton seed. The decline in tea and indigo is due to special causes noticed elsewhere. Cotton and jute manufactures had both shown a very notable increase in the last two years, and it is not surprising to find that the figures of the year under report are lower in the case of cotton and only slightly higher in respect of jute,

As regards cotton yarns, which also were exported in exceptionally large quantity in 1901–02, there was a decline, though the exports are still high.

| Exports. | 1898-99. | 1899-1900. | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Raw cotton - - | 7,459,000 | 6,617,000 | 6,752,000 | 9,617,000 | 9,838,000 |
| Cotton yarns - - | 4,402,000 | 4,601,000 | 2,780,000 | 6,211,000 | 5,693,000 |
| Cotton piece goods, &c. | 790,000 | 915,000 | 1,022,000 | 1,032,000 | 978,000 |
| Raw jute - - - | 4,628,000 | 5,381,000 | 7,245,000 | 7,865,000 | 7,418,000 |
| Jute manufactures - | 3,865,000 | 4,176,000 | 5,243,000 | 5,807,000 | 6,013,000 |
| Wool, raw - - | 835,000 | 904,000 | 602,000 | 529,000 | 777,000 |
| Rice and rice flour - | 10,543,000 | 8,731,000 | 8,813,000 | 9,280,000 | 12,597,000 |
| Wheat - - - | 6,480,000 | 2,606,000 | 20,000 | 2,171,000 | 3,010,000 |
| Oilseeds - - - | 7,898,000 | 6,733,000 | 6,009 000 | 11,186,000 | 9,922,000 |
| Tea - - - | 5,363,000 | 6,061,000 | 6,367,000 | 5,433,000 | 4,908,000 |
| Coffee - - - | 1,167,000 | 990,000 | 819,000 | 833,000 | 881,000 |
| Opium - - - | 4,751,000 | 5,469,000 | 6,304,000 | 5,682,000 | 5,345,000 |
| Indigo - - - | 1,980,000 | 1,795,000 | 1,424,000 | 1,235,000 | 804,000 |
| Hides and skins - | 4,966,000 | 6,975,000 | 7,655,000 | 5,487,000 | 5,623,000 |

The proportion of the total trade in merchandise on private account which was carried on directly with European countries was about 63⅛ per cent., omitting the trade with Egypt, much of which really goes to Europe; it includes 83½ per cent. of the imports and 50¾ per cent. of the exports. The trade with the United Kingdom was about 64½ per cent. of the whole private merchandise trade with Europe, including 79½ per cent. of the imports from Europe; and it constituted 40⅘ per cent. of the total trade in merchandise on private account against 40⅗ per cent. in 1901–02.

The value of India's trade in private merchandise with some of the chief countries, imports and exports combined, has fluctuated as follows in the last six years :—

| —— | 1898-99. | 1899-1900. | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| United Kingdom - | 53,257,900 | 53,645,000 | 53,806,000 | 55,705,000 | 56,442,000 |
| France - - - | 5,905,000 | 5,127,000 | 4,750,000 | 6,848,000 | 7,047,000 |
| China - - - | 9,697,000 | 10,541,000 | 9,597,000 | 12,986,000 | 12,128,000 |
| Germany - - | 6,655,000 | 6,144,000 | 7,882,000 | 8,810,000 | 8,225,000 |
| Straits Settlements | 5,320,000 | 5,157,000 | 6,273,000 | 5,997,000 | 6,731,000 |
| United States of America. | 4,500,000 | 5,907,000 | 5,655,000 | 6,379,000 | 6,499,000 |
| Russia - - - | 1,455,000 | 1,683,000 | 2,059,000 | 2,266,000 | 2,064,000 |
| Austria-Hungary - | 3,017,000 | 2,733,000 | 3,904,000 | 4,216,000 | 3,847,000 |
| Belgium - - | 4,620,000 | 3,514,000 | 3,994,000 | 5,161,000 | 5,371,000 |
| Italy - - - | 2,585,000 | 2,336,000 | 2,630,000 | 2,610,000 | 2,836,000 |
| Ceylon - - - | 3,341,000 | 3,273,000 | 3,799,000 | 3,663,000 | 3,489,000 |
| Japan - - - | 3,855,000 | 4,571,000 | 1,958,000 | 5,118,000 | 4,446,000 |

TRADE. The following figures show the proportionate share of each province and of the five chief ports in the private trade with foreign countries in merchandise only:—

| | Imports (percentages). | | | Exports (percentages). | | |
|---|---|---|---|---|---|---|
| | 1900-01. | 1901-02. | 1902-03. | 1900-01. | 1901-02. | 1902-03. |
| PROVINCES: | | | | | | |
| Bengal - - - | 41·8 | 40·3 | 41·7 | 51·3 | 44·5 | 41·8 |
| Bombay and Sind - - | 40·5 | 42·6 | 41·6 | 28·4 | 37·5 | 36·0 |
| Madras - - | 8·7 | 9·5 | 9·1 | 10·9 | 9·5 | 10·2 |
| Burma - - | 9·0 | 7·6 | 7·6 | 9·4 | 8·5 | 12·0 |
| | 100 | 100 | 100 | 100 | 100 | 100 |
| CHIEF PORTS: | | | | | | |
| Calcutta - - - | 41·7 | 40·1 | 41·5 | 50·5 | 43·1 | 40·4 |
| Bombay - - - | 34·5 | 34·7 | 35·0 | 25·3 | 30·4 | 29·8 |
| Karachi - - - | 6·0 | 5·2 | 6·6 | 3·1 | 7·1 | 6·2 |
| Madras - - - | 7·4 | 7·4 | 7·7 | 5·0 | 3·6 | 3·7 |
| Rangoon - - - | 8·8 | 7·5 | 7·4 | 6·7 | 6·5 | 9·0 |

The foreign export trade of Bombay has made a considerable recovery in the last two years, after two years of great depression during the period of famine and the disorganisation of the mill industry. Nearly 74 per cent. of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of the port of Bombay, the former possessing £56,465,000 in 1902–03 and the latter £43,976,000 as the total value of their export and import trade.

The net imports of treasure were £10,440,500, or £4,353,500 more than those of the previous year. The balance of trade, or excess of seaborne foreign exports over imports of merchandise and treasure, both on Government and private account, was, as above stated, £18,611,200, or more than 3 per cent. above the figure of 1901–02.

Land trade. The frontier trade, after increasing steadily during recent years, received a set back in 1902–03 to the extent of £1,000,000, the decrease being most marked in the trade with Kashmir. Of the total of £8,573,300, about two-fifths crossed the north-west frontier, including trade with Kashmir, while the trade with Nepal, together with the small trade carried on with Thibet (about £200,000 a year in value) was rather less than the north-west frontier trade. The Nepal trade (value £2,562,000 in 1902–03) is carried on, not so much with the valley of Nepal as with the rice lands which skirt the southern face of the mountains. It is also to be observed, in respect of other portions of the frontier trade, that the figures include trade with tracts such as Kashmir and the Shan States, much of which cannot properly be regarded as trans-frontier trade. Trade with Kashmir declined, as did the trade with southern Afghanistan; that with Kabul again showed a satisfactory recovery. The new caravan route to Persia from Quetta, by way of Nushki, has not quite fulfilled expectations, and the trade with Seistan and the neighbouring regions was small (£36,000). The trade with Western China, so far as it is registered, returned to about the figures of 1900–01; but there is reason to believe that a large part, perhaps half, of the frontier trade of Burma escapes registration. Taking the frontier trade as a whole, the chief items were, among imports, food grains (value £911,200) and, among exports, cotton goods (value £1,433,500).

Coasting trade. The combined import and export trade in merchandise and treasure carried on by coasting vessels is said to have represented a value of £46,000,000 during 1902–03, or about 8 per cent. less than the trade of 1901–02. It is to be observed that in this calculation each transaction is counted twice, and the value of the merchandise and treasure concerned

stands at about half the above figure, or 23 millions sterling. The only remarkable improvements are in the exports of mineral oils from Burma and in the transport of raw cotton, of which there was a very heavy crop. TRADE.

## MANUFACTURES.

MANUFACTURES.

General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, manufacturing industries have been growing up, and steam power factories are at work, among which those for spinning and weaving cotton and jute are the most important, though a certain amount of employment is given by the mills for spinning and weaving silk or woollens, for making paper or sawing timber, by tile factories, printing presses, and so forth. Steam power is also largely employed in factories on tea gardens and indigo estates.

An Exhibition of Indian Art was opened at Delhi on the 30th December 1902 in connection with the Coronation Durbar. As its name implies, it was not intended to have an economic or industrial character; but the art manufactures of India have a very important place among her industries, and the exhibition must be mentioned here as being intended for their promotion and encouragement. An official catalogue, the value of which is attested by the name of its author, Sir George Watt, C.I.E., has recently been published under the name "Indian Art at Delhi," and contains much information of permanent interest regarding Indian arts and industries.

Cotton mills.

There were at the end of the year 1902–03 in British India and Native States 201 cotton mills containing 43,676 looms and 5,164,360 spindles, and giving employment on an average to 178,444 persons every day. The capital invested, so far as this information is given, was £11,698,000; but there is no statement of the capital of 13 mills worked by private proprietors. The total might be estimated at about 12 millions sterling. The industry dates from 1851, when the first mill was started. It is located, as regards 70 per cent. of it, in the Bombay Presidency, while there are 20 mills in the territory of Native States and in French possessions in India. The out-turn of yarn in recent years has been as follows in British India:—

| — | Counts above 20s. | Lower Counts. | Total. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| 1897–98 | 60,867,446 | 392,791,900 | 453,659,346 |
| 1898–99 | 61,353,230 | 441,277,034 | 502,616,985 |
| 1899–1900 | 62,093,277 | 439,591,918 | 501,294,539 |
| 1900–01 | 70,005,109 | 272,772,438 | 342,777,547 |
| 1901–02 | 84,396,316 | 475,608,532 | 560,004,848 |
| 1902–03 | 95,779,659 | 463,032,381 | 558,812,040 |

The great decline in the low-count yarns in 1900–01 was due partly to the famine in India, which impaired the purchasing power of the people at the same time that it raised the price of raw material, and partly to the collapse of the Chinese market, which in turn was caused by over-supply from India and Japan, and by the political and military events in China. In 1901–02, with the passing away of these causes of depression, and a reduction in the prices of raw cotton following on larger crops, the mills resumed operations with great activity. In the year under review, the Bombay Presidency produced 75 per cent of all the yarn, Bengal 8 per cent., Madras 6 per cent.;

MANUFACTURES.

the United Provinces about 5 per cent., and the Central Provinces 4 per cent. The production of yarns of counts above 20*s*. continues to increase, and the Bombay mills now spin an appreciable quantity (20 per cent. of their output in 1902–03) of these higher counts. The out-turn of finer yarns, 31*s*. to 40*s*., in Indian mills increased from 11 millions of pounds in 1900–01 to about 12½ millions in each of the two later years. The Bombay mills also spin an appreciable quantity of yarns of No. 40 and upwards, using Egyptian or other imported cotton.

The production of woven goods by cotton mills in British India rose from 115,966,100 lbs. to 117,284,600 lbs., of which 86 per cent. came from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 4 and 6 per cent. respectively of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any very large proportion of the weaving consist of finer goods, and there these fabrics constituted 58 per cent. of the production. It is to be observed, however, that there is a very decided tendency to increase the output of the finer classes of goods, which stood at 22,841,000 lbs. in 1902–03, or nearly 16 per cent. more than in the preceding year, the out-turn of grey goods being rather lower than the high figure of that year. The out-turn of mills in the Native States, in Berar, and in Pondicherry, is stated as follows:—1900–01, yarn 10,195,500 lbs., woven goods 2,903,000 lbs.; 1901–02, yarn 12,933,300 lbs., woven goods 3,684,500 lbs.; 1902–03, yarn 17,422,500 lbs., woven goods 5,489,400 lbs.

**Jute mills.**

The number of jute mills in 1902–03 was 36, containing 17,091 looms and 350,130 spindles, and employing a daily average of about 118,000 persons. All the mills, with the exception of one at Cawnpore, are in the province of Bengal, and most of them are in the vicinity of Calcutta. The capital employed by these mills is about £4,800,000, of which rather more than one-third is sterling capital. The rupee capital invested has nearly doubled in the last ten years. In 1901–02 the corresponding figures were 35 mills, 114,000 hands, 16,021 looms, and 329,298 spindles. There were four woollen mills at work at the end of 1902, containing 25,236 spindles and 669 looms, and producing goods valued at £187,600 in the year. Only two of the mills, those at Cawnpore and at Dhariwal, in the Punjab, are of great importance. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police, and an admixture of Australian wool is used. There is not much demand in India for woollen goods except for descriptions which could hardly be made profitably in India in competition with European mills, and any large expansion of the industry can hardly be expected. There are in various places factories for the weaving of carpets and rugs, but though these industries are in the aggregate extensive they are individually small, and the weaving is done in hand-looms.

**Paper mills.**

There were eight paper mills at work in India, employing a daily average of 4,865 hands, and producing in 1902 about 46⅔ million lbs. of paper, valued at £429,200. Most of the foolscap, blotting paper, notepaper, and envelopes used in Government offices is now obtained from the Indian mills; but there has been a depression in the paper-making industry in Bengal in recent years, owing to the importation in large quantities of cheap paper made from wood pulp, which is of more attractive appearance, if less durable, than paper made from grass, gunnies, and rags in the Bengal mills. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available.

**Other industries.**

In 1902 there were 27 breweries at work, which produced during the year 6,474,860 gallons of beer and porter. The Commissariat Department bought nearly half of this malt liquor for the use of European soldiers. The largest brewery was at Murree in the Punjab Himalayas, and the output of that concern was over a million gallons in 1902. The quantity of beer, porter, and cider imported into India was 3,820,000 gallons in 1902–03, or about two thirds of the quantity produced in the country.

There are a large number of cotton spinning factories or presses, indigo factories of all sizes and kinds, iron and brass foundries, &c. scattered

MANUFACTURES.

throughout the country, which are enumerated more or less roughly in the annual returns. But nothing illustrates better the present state of industrial development in India than the fact that, after the cotton and jute industries, and apart from the indigenous industries, there was only one of the manufacturing industries, strictly so called, namely the iron and brass foundries, in which as many as 20,000 persons are returned as having been employed during the year. In the preparation of agricultural staples for the market, employment is found for larger numbers; indigo factories, for instance, employed over 81,000 workers; cotton ginning, cleaning, and pressing mills over 65,000; jute presses 22,000. But of manufacturing industries properly so called, which are capable of expansion apart from the increased productiveness of the soil, the most important, after cotton and jute mills, are the iron and brass foundries (20,674 workers), silk filatures (10,652), tanneries (8,626), and others of still less importance. It must not, however, be forgotten that the returns upon which these figures are based are in most cases of very doubtful value. Omitting these untrustworthy returns of the minor industries, the following table gives some particulars as to industrial employment:—

| | Average daily Number of Employés. | | | |
|---|---|---|---|---|
| | Men. | Women. | Children and young Persons. | Total. |
| Cotton mills (figures for 1902-03) - | 111,559 | 36,325 | 29,766 | 178,444* |
| Jute mills ( „ „ ) - | 77,114 | 20,253 | 20,699 | 118,066 |
| Woollen mills ( „ „ ) - | — | — | — | 2,854 |
| Paper mills ( „ „ ) - | — | — | — | 4,865 |
| Coal mines ( „ 1902) - - | 66,521 | 27,218 | 4,573 | 98,312 |
| Other mines ( „ „ ) - | 45,473 | 9,479 | 4,901 | 57,853 |

* Details defective.

The average number of men, women, and children shown in a table below to have been employed in 1902 in the factories coming under the Factories Act is 541,634. If to these be added the figures given above for employment in mines, a total of 697,799 results. The total number of workers in large industries given in the General Census report is 688,352. The progress of the agricultural industries, such as the tea industry and the indigo industry, and also that of the coal industry, has been noticed in the chapter on agriculture and mineral resources, as is the usual practice in these annual Statements.

## FACTORIES ACT.

FACTORIES ACT.

The present Indian Factories Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly:—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours, and their employment at night-time was forbidden;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1892 to 11 hours a day, with intervals amounting to 1½ hours;

Hours of rest during work were prescribed for all labourers.

FACTORY ACT.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows :—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1902.

| PROVINCE. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents Reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted from Sunday Stoppage. | | Fatal. | Serious. | Minor. | Total. |
| Bengal - - | 258 | 161,435 | 25,231 | 18,486 | 205,152 | 157 | 9 | 90 | 3 | 33 | 194 | 456 | 683 |
| United Provinces - | 108 | 30,811 | 3,564 | 1,685 | 36,060 | 76 | 26 | 6 | 1 | 5 | 51 | 70 | 126 |
| Punjab - - - | 166 | 14,630 | 2,052 | 768 | 17,450 | 106 | 48 | 10 | 2 | 7 | 16 | 134 | 157 |
| North West Frontier Province. | 1 | 10 | 12 | — | 22 | 1 | — | — | — | — | — | — | — |
| Burma - - | 169 | 27,890 | 527 | 100 | 28,517 | 164 | 1 | 4 | 5 | 3 | 102 | 80 | 185 |
| Central Provinces - | 107 | 14,094 | 5,408 | 1,298 | 20,800 | 49 | 57 | 1 | 6 | 1 | 41 | 30 | 72 |
| Madras - - - | 83 | 30,906 | 2,561 | 1,933 | 35,408 | 75 | 4 | 4 | — | 6 | 10 | 233 | 249 |
| Bombay - - | 400 | 134,327 | 39,118 | 6,779 | 180,224 | 283 | 114 | 2 | 5 | 37 | 71 | 1,491 | 1,599 |
| Assam - - - | 10 | 1,235 | 467 | 97 | 1,799 | 10 | — | — | — | 3 | — | — | 3 |
| Ajmere - - | 1 | 558 | 45 | 3 | 606 | 1 | — | — | — | — | — | 4 | 4 |
| Berar - - - | 208 | 9,379 | 6,889 | 228 | 16,496 | 100 | 108 | — | 2 | — | 10 | 19 | 29 |
| Total, 1902 - | 1,511 | 424,375 | 86,882 | 31,377 | 541,634 | 1,022 | 367 | 117 | 24 | 95 | 495 | 2,517 | 3,107 |
| Total, 1901 - | 1,259 | 408,950 | 75,803 | 29,463 | 514,216 | 915 | 309 | 120 | 22 | 92 | 442 | 2,422 | 2,956 |

The work of inspectors was well performed in most provinces. The sanitary condition of the factories is reported to be generally satisfactory, and the subject continues to receive the careful attention of the inspecting officers. A satisfactory account is also given of the health and general condition of the operatives, although in Berar they have suffered somewhat from the plague. There was no appreciable decline in the frequency of accidents. The increase in the number of factories and of employés is to be taken into account; but it appears that, while the number of accidents per factory was rather lower than in the preceding year, the proportion which they bore to the number of operatives was approximately the same, viz., 1 to every 174. Possibly the greater care taken in reporting accidents may conceal a tendency towards a decline in their number. Detailed statistics as to the wages of mill operatives are now collected, with a view to publication in the yearly volume "Prices and Wages," published by the Government of India. The wages compare favourably with those of agricultural labourers in all provinces.

# CHAPTER XVI.

## FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATES.

Baluchistan and the Persian Frontier.

The year under review was the first year of the new Provincial Settlement. The Imperial assignment for Baluchistan was £114,000, as against £86,000 in the past. The revenues of the Agency, including this allotment of £114,000, amounted to £172,000, and the total expenditure was £164,000.

The season was generally unfavourable to cultivators. The drought of the previous year continued and the rainfall throughout the Province was deficient. The districts which suffered most from want of seasonable rain were Quetta-Pishin, Zhob, and Chagai. The grass crops failed in many places, and considerable mortality occurred amongst cattle and sheep. As was to be expected in such conditions the Land Revenue showed a further falling-off. The total receipts under this head were approximately £36,000 as against £53,000 in 1893–4, the best year, and £34,000 in 1899–1900, the worst year in the last decade.

The survey of a line of railway from Quetta to Nushki having been completed and the sanction of the Secretary of State having been obtained for the construction of the line, tunnelling was commenced, and a considerable amount of earthwork was completed. Though no new roads were initiated, the Musa Khel-Durg road was continued and the Nushki road was improved, while certain improvements were made in the Dâk bungalows and rest-houses, and wells were dug on the Nushki-Seistan Trade route.

The trade returns through Nushki showed a large falling-off, the total of the year's returns being only £70,000, of which the imports are represented by £39,000 and the exports by £31,000, as against £80,000 and £50,000 for the exports and imports in the previous twelve months. The falling-off is attributed chiefly to the prevailing scarcity in these regions. Southern Khorassan, as well as the valley of the Helmand, and the larger portions of the Governorship of Kandahar, in which are included the trans-frontier Afghan districts of Shorawak and the Registan, were devastated by the worst famine which has been recorded for 30 years or more. The new Persian tariff, which was recently brought into force, has had an adverse effect on trade by the Nushki route, whilst Russian competition, which is favoured by the new tariff, has also proved detrimental to British enterprise.

The appointment of a native assistant to the Political Agent in Kelat was sanctioned with a view to the exercise of better control over the Sarawan country. A new Levy Thana was also established in this district. The Jhalawan country was in an unsettled condition. Many cases of dispute were inquired into by the Political Agent in Kelat, and measures for the better control of the district were under consideration.

On the Mekran coast discontent prevailed amongst traders at Gwadar in consequence of steps taken by the Sultan of Muscat to assimilate the customs tariff at that port with the tariff in force at Muscat. It is not improbable that this will lead to a great deal of the Gwadar trade passing to Pasni, which is already showing signs of becoming a more considerable port.

The operations carried out by the troops under the Political Agent, Kelat in 1901–02, which ended with the capture of Nodiz fort, have had a good effect, and for the first time for many years Mekran was undisturbed. In accordance with arrangements made in 1902 the Political Agent, Mekran, met the Persian Governor-General of Kerman at Pishin, on the Persian side of the border, and settled pending border cases.

Mir Mehrulla Khan, the Nazim or Governor under the Khan of Kelat, is reported to have done good work in the district under his charge. He received the C.I.E. in January 1903.

FRONTIERS AND FRONTIER STATES.

The Budget estimates submitted by the Nazim show an estimated closing balance of £850.

Affairs in Las Bela and in Karan call for no special remark.

The western frontier of Baluchistan enjoyed complete rest and immunity from raids and disturbances.

Mahomed Umar, who for some time past has been a disturber of the peace on the Perso-Baluch frontier, passed with his armed followers into Afghanistan. He was reported to be in Kandahar, and the Amir has promised not to let him live near the British border.

With the exception of one or two frontier raids on a small scale, and some cases of petty thieving and robbery, attributable to the prevailing scarcity, the peace of the Afghan border was undisturbed.

In January 1903, Colonel McMahon, Revenue Commissioner, Baluchistan, was deputed to arbitrate between Persians and Afghans in a dispute regarding the Helmund water and other kindred matters, under the terms of the British Treaty with Persia of 1857.

The North-Western Province.

The excitement which not unnaturally prevailed along the border after the death of the Amir of Afghanistan in October 1901 gradually subsided. In April 1902 a great Durbar was held at Peshawur, at which the Viceroy met the Chiefs of the settled districts and the Jirgas of the trans-border clans and made a clear statement to them of the policy of the Government.

The inauguration of the Province in November 1901 had found the Mahsuds under blockade for a long series of offences. A merely passive blockade having failed to entirely achieve its object, active retaliatory measures were taken and columns despatched into the Mahsud country. The tribe then submitted and made the full reparation required. The blockade was raised in March 1902, and since then a satisfactory state of affairs has been maintained on that portion of the border.

Later in the same year, measures were taken to clear the Bannu and Kohat borders which had for years been harassed by gangs of outlaws, mostly Darwesh Khal Wazirs. The appearance of troops in their country was sufficient to induce the tribes to surrender most of these outlaws, who received long terms of imprisonment.

There were no disturbances in the Khyber. The construction of a camel road from Peshawur to Landi Kotal through the Mullagar country was commenced.

At the close of the year under review the frontier enjoyed complete peace. There were no signs of unrest on the northern border and to the south the long succession of Waziri outrages had been checked.

A joint Commission was appointed to settle disputes between Afghan and British subjects on the Kurram and Waziristan borders.

By the construction of such works as the Nowshera-Dargai and Kohat-Thal Railways, the extension of the main line to Jamrud, and the re-alignment of the Kohat Pass Road, not only was the military position strengthened, but the prosperity and trade of the settled districts were materially advanced; at the same time the introduction of methods of civilisation into the trans-border charges was continued by means of hospital schools and courts of justice.

In all the agencies the garrisons were reduced. The Kurram Valley is now held by militia alone. On the Samana and in the Tochi the military were withdrawn from several ports. The policy of concentrating the troops at points of military importance and entrusting the outposts of the province to the border military police was steadily carried out.

Dir, Swat and Chitral Agency.

The political relations with the chiefs and tribes of the Agency were on the whole satisfactory. There was no serious trouble from the preaching of religious agitators. The new Queen Victoria Hospital at Chakdarra was completed during the year under review, and was handed over to the Civil Surgeon. It is likely to prove of value as a civilising and conciliating influence.

FRONTIERS AND FRONTIER STATES.

The Chitral road was maintained in good order. The bridge over the Panjkora river was completed in May 1902, and in March 1903 the permanent steel bridge over the Swat river at Chakdarra was opened.

The frontier trade returns for 1902–03 have not yet been furnished; but the returns for the previous year, both for exports and imports, were satisfactory; and the prospect of further development were encouraging. The Chief Commissioner's views were expressed in his report as follows:—

"The general improvement of trade with the territories beyond our border is a matter for satisfaction on political as well as economic grounds, as it gives the tribesmen who so largely profit by it an additional stimulus for maintaining the peace of the border, and also tends to promote internal harmony among them. The country is becoming more settled every year and less disturbed by faction fights and the raids of budmashes. Hence new and shorter routes are being opened up, and trade that before came by the Malakand from Swat and Chitral now comes direct through the Shakol and Morad passes, and from Bajaur by the Totai road. The fact that the registration port for this trade is in the Malakand explains the comparatively slight increase shown in the returns of the Bajaur trade."

The Hill Bhitanis hitherto under the political control of the Political Agent, Wana, were transferred as a matter of convenience to the control of the Deputy Commissioner Dera Ismail Khan and his assistant in the Tank sub-division.

Kashmir.

No events of political importance occurred in Kashmir in 1902–3. The figures in regard to trade, revenue, &c., are given in Chapter XV.

Nipal.

The Nipal Durbar continued to give the same facilities as in the past for the recruitment of Gurkhas for the Indian army. 1,790 men were enlisted for Gurkha Regiments and Military Police Battalions during the year. The relations of the Durbar with China and Tibet remained friendly, and no cause of friction arose during the year under report.

The full trade returns for 1902–03 are not available at present, but for the eleven months ending 28th February 1903 the exports amounted to £1,470,000 and the imports to £885,000. The figures are somewhat lower than those for the corresponding period of the previous year.

Sikkim and Bhutan.

The total value of trade between Sikkim and Tibet *viâ* Yatung amounted to £127,000 as against £110,000 in the previous year.

Steps to protect the boundary north of Giaogong—between Sikkim and Tibet—were necessary during the year. An account of the action taken is given in the Papers relating to Tibet, presented to both Houses of Parliament by command of His Majesty in 1904.

The country was swept by severe hailstorms in April and May, which did great damage to the crops; consequently the season was unfavourable for cultivators and the receipts were poor.

The cash balance of the State on the 31st March 1903 was about £2,000.

The Deb Raja of Bhutan died in December 1902.

Large numbers of Nepalese, estimated at 20,000 in number, from Sikkim, Nepal, and British territory, have lately settled on grants of land obtained from the Bhutan Government in the Bhutia Terai and lower slopes of the Himalayas in Bhutan.

Manipur.

In Manipur the rainfall was good and well distributed throughout the year, and the harvest plentiful.

The revenue of the State amounted to £23,000 as against £26,000 in the previous year. There was a falling off in the Land Revenue, Hill House Tax, Fisheries, and Forests. The decrease of the Land Revenue was due to change in the system of collection, owing to which a considerable balance was left outstanding at the close of the year. It is expected that this will soon be realised.

The decrease under Hill House Tax was due to the exemption of Nagas living in the plains. Owing to heavy floods the profits of fisheries fell off.

The expenditure during the year was £24,000 against £30,000 in the previous year. The closing balance showed a sum of £15,000 at the credit of the State against £16,000 at the end of 1901–02.

Several cases of serious crime were reported among the hill tribes.

FRONTIERS AND FRONTIER STATES.

The Assam frontier tribes generally behaved well; but the Daflas and the Passi Meyongs (Abors) caused some trouble; whilst the Naga tribes on the southern border engaged in sanguinary inter-tribal feuds, and measures were taken to restore order.

**Assam frontier.**

The little State of Cherra, in the Khasi and Jaintia Hills district, had been quiet since the confirmation by Government of U. Roba Singh as Siem, though many of the people still refused to submit to him. An inquiry was made during the year by the Deputy Commissioner in regard to the system of succession to the Siemship prevailing in each State. Complaints having been made of the unsatisfactory administration of justice by the Wahadadas of the Shella Confederacy, some changes were made in the rules laid down for their guidance.

**The Chin Hills.**

The Chin Hills proper enjoyed another year of prosperity and progress, and indications were not wanting of the gradual adoption of more enlightened ideas and methods of the tribesmen.

A raid by the Lasa Chins into the Upper Chindwin district resulted in the capture of a party of fishermen. These were released, but the affair still awaited final settlement.

In the Pakokka Chin Hills the year was generally uneventful. Tribute was collected with greater ease than ever before. There was, however, a serious raid by certain villagers from beyond the frontier, which necessitated a punitive expedition. Compensation was exacted and order restored.

**Kachin Hills and N.E. Burma.**

In the Kachin Hills district the tranquillity of the border was practically unbroken. Relations between the British and Chinese officials improved as a result of the Manai agreement. Postal communication was established between Bhamo and Tengyueh. The stationing of an officer of the Chinese Imperial Customs' Service at the latter place has proved a valuable encouragement to the trade between China and Burma. There was a noteworthy decrease in the number of forays into British territory from the Chinese side of the border.

**The Shan States and Karenni.**

In the Northern Shan States the Hsipaw Sawbwa Hkun Saing, C.I.E., died in May 1902. His eldest son succeeded him, and has been recognised as Sawbwa.

Part of Northern Hsenwi was brought, for the purposes of revenue administration, under the direct control of the Superintendent.

There was no diminution in the amount of crime in the Northern Shan States during the year, and the chiefs showed very little energy in investigating it.

The year was an unfavourable one for the crops owing to the unsatisfactory nature of the rainfall; but garden cultivation increased, and more tea was grown than in the previous year. Trade was brisk, and exports by rail showed a large increase.

The State of Mong-Mit was being administered as a sub-division of the Ruby Mines district during the minority of the young Sawbwa.

In the Southern Shan States the period under review was on the whole a time of prosperity and tranquillity. A new school for the sons of Shan Chiefs was opened at Tanngojyi. It promises to be highly successful.

Disturbances in Northern Siam adversely affected trade between that country and the Shan States, but insurgents were prevented from crossing the border. Relations with the French officials across the frontier continued to be friendly.

There was no serious outbreak of crime during the year, and the working of the civil police was satisfactory.

The year was unfavourable to cultivators, the rainfall being generally inadequate.

The volume of trade with Burma decreased. It is seriously checked by want of any cheap means of transport between the Shan States and Burma.

Native administration in Karenni was on the whole satisfactory, and the chiefs continued to be on friendly terms.

## NATIVE STATES.

NATIVE STATES.

Thagi and Dakaiti.

The conditions under which the work of the three Agencies of the Thagi and Dakaiti Department in Rajputana, Central India, and Hyderabad was carried out remained unchanged during the year under review. Detailed reports for the year 1903 have not yet been furnished.

In the Rajputana Agency the relations of the Department with Native States was in every way satisfactory. The Central Criminal Identification Bureau was opened at Abu, and good results were obtained. The most important work accomplished during the year was the reduction to order of the turbulent Bhils on the Rewa Kantha border, who in 1901 showed signs of giving serious trouble. The measures adopted were successful. Two of the Bhil leaders were arrested and many of those implicated were brought to justice. In the Central India Agency sanction was obtained to the introduction of the system of identification of criminals by means of finger-marks, and measures were taken for the early opening of a Criminal Identification Bureau at Indore.

There was a decrease of crime in Central India and in Hyderabad. In Central India the decrease is shared by the great majority of the States, Indore and Gwalior being conspicuous in this respect. In Rajputana the state of crime remained practically the same as in the preceding year.

The number of cases is shown as follows :—

| Year. | Dacoity in | | |
|---|---|---|---|
| | Rajputana. | Central India. | Hyderabad and Berar. |
| 1900 - - | 1,086 | 1,051 | 620 |
| 1901 - - | 345 | 627 | 222 |
| 1902 - - | 346 | 432 | 246 |

Hyderabad.

The Hyderabad Government does not publish an Annual Administration Report, and no further information is available in regard to the State than that which was included in last year's statement.

The most important event of the year, viz., the Agreement concluded with His Highness the Nizam which provided for the lease to the British Government in perpetuity of the Hyderabad Assigned Districts, was noticed in last year's Statement. Details connected with this Agreement are given in Parliamentary Paper Cd. 1321, 1902.

Information as to Dacoity in the State is given above.

Mysore.

The rainfall in the Mysore State was above the average for 30 years past. Whilst the season was favourable to cultivators and the retail prices of food grains were lower than in the preceding year, plague was severe, the returns showing a considerable increase, viz., 35,480 cases and 26,155 deaths, as against 21,976 cases and 16,083 deaths in 1901–02. Sanitary improvements were effected and measures were generally adopted to arrest the spread of the disease. The meeting of the Representative Assembly was again dispensed with on account of the plague in the City of Mysore.

The following regulations were passed during the year :—

"Weights and Measures Regulation," "Amendment of Excise Regulation," "Amendment of Law of Evidence with respect to Bankers' Books," "Mysore Registration Regulation." Other legislative measures were under consideration.

NATIVE STATES.

The following are the principal figures in connection with Revenue and Expenditure of the State :—

| REVENUE. | | EXPENDITURE. | |
|---|---|---|---|
| Land Revenue - - | £662,533 | Land Revenue - - | £123,066 |
| Mining Royalty and leases | 102,133 | General Administration - | 50,000 |
| Forests - - - - | 100,533 | Palace - - - | 93,333 |
| Excise - - - | 245,866 | Law and Justice - - | 66,933 |
| Railways - - - | 38,666 | Police - - - | 65,666 |
| Canvery Falls Scheme - | 79,000 | Education - - - | 47,133 |
| | | Allowances, &c. (including Tribute) - - | 255,000 |
| Total (including other sources) - | £1,378,000 | Military - - - | 95,800 |
| | | Public Works - - | 179,333 |
| | | Plague charges - - | 7,066 |
| | | Railways - - | 48,733 |
| | | Canvery Falls Scheme - | 52,733 |
| | | Total (including other sources) - | £1,344,000 |

The sum expended on Public Works, which is given in the Statement of Revenue of Expenditure as £179,000, was increased by assignments from municipal and other sources to £258,000.

The principal items of expenditure were £53,000 on communications, work and repairs; and £51,000 on irrigation. It may be noted here that the Cauvery Electric Power Scheme was completed during the year under review. Electric installations were successfully carried out, and electricity of about 4,000 H.P. was distributed to several mines on the Kolar gold fields. Expenditure on the undertaking, capital and revenue, amounted approximately to £53,000, and the earnings for the year were £79,000.

During the year under report the construction of no lines of railway was undertaken by the State. The length of open lines remained the same as in the preceding year, viz., 401 miles metre gauge, 10 miles standard gauge.

Some account of the gold production of the Mysore gold mines is given in Chapter X.

Baroda.

The rainfall, though late, was ample in the Baroda State. With the harvesting of the monsoon crops, the help which had been given to the people by the Darbar during the three preceding years of famine and scarcity was no longer considered necessary, and the famine was declared to be over on the 1st December 1902. During the eight months, April to November 1902, the sum of £95,751 was spent on various relief measures. Adding this sum to the amount spent during the preceding three years, the total amount spent by the Darbar on famine relief operations comes to, roughly, £680,000.

There were cases of plague in all the Divisions of the State. The Kadi Division suffered the least. Sporadic cases continued to occur till the end of November, and the epidemic assumed a serious form till the middle of December 1902. The returns for the whole State show 12,746 cases and 9,121 deaths, the highest number recorded in one year since the commencement of the plague in 1897. Endeavours were made to prevent the spread of the disease, and the usual precautionary measures were adopted. The people knew from past experience the advantages of leaving their homes when plague appeared, and therefore most of them evacuated infected localities of their own free will.

The new rules published by the Darbar for the suppression of traffic in contraband salt in Baroda, Kadi, and Naosari Divisions are reported to have worked well during the year.

Various railway schemes engaged the attention of the Darbar. It was decided amongst other things to defer the construction of the Miagam-Sinor line till the financial circumstances of the State improve. The regular construction of the Padra-Ranu-Dabka extension, and Ranu-Mobha-Kanjat extension, which are on the 2 ft. 6 in. gauge, was started by the Bombay,

Baroda, and Central India Railway Company on behalf of the Baroda Darbar in September 1902, and the work was approaching completion. NATIVE STATES.

It may be noted here that up to March 1903, His Highness the Gaekwar had constructed 222·37 miles of rail in his territory at a cost of nearly £533,000, and the net earnings amount to about £23,000 per annum. Besides the above amount, His Highness has taken shares to the amount of £232,000 in the Tapti Valley and Ahmedabad Prantji Railways, as these lines pass through a portion of his territory, and he receives annually £13,000 as interest on the capital invested. Railways thus bring in about £36,000 a year to the State

Figures in regard to the Revenue and Expenditure of the State for the year 1902–03 are not yet available.

The Administration Report of the Rajputana Agency for the year 1902–03 has not been received. Rajputana.

Scarcity, amounting in some parts to famine, continued in the Malwa and Bhopawar Agencies, and in the western tracts of the Gwalior and Indore States until the monsoon set in, when the rains were sufficient and evenly distributed throughout Central India. The public health continued generally good, and the Agency was free from any serious epidemic till October 1902, when plague, which had so long spared Central India, broke out in a village in the Indore State to the south of Narbada in the Bohopawar Agency, and in spite of all precautionary measures, spread rapidly, eventually finding its way to the capital and outlying villages of the Ratlam State. The disease was imported thence into the Indore City about the first week in February and continued until the close of the year. Central India Agency.

The total outlay on Imperial Public Works in Central India in 1902–03, amounted to £24,149, of which £8,317 was spent on communications and £4,797 on civil buildings. The total expenditure on public works in the Native States was £214,324. The operations of the Public Works Department in the Agency were greatly reduced by the transfer to the chief Native States of the care of the metalled roads in these territories. The total length of road communication maintained by the Imperial Public Works Department during the year under review was 799 miles as compared with 2,717 miles by Native States.

As reported in last year's statement, His Highness the Maharaja Sir Sivaji Rao Holkar retired on the 31st January 1903 from the Chiefship of Indore in favour of his son Tukaji Rao Holkar. The new Maharaja being a minor, the State is now administered by a Native Minister and Council of Regency. Amongst the administrative acts of the year was the conversion of the State currency into British coin. Measures with the object of ameliorating the condition of the *raiyats* were also introduced, and steady progress was made in survey and settlement work. Owing to the bad season the revenue amounted to only £270,000, while the expenditure was £385,000, leaving a deficit of £115,000.

In the Bundelkhand Agency His Highness the Maharaja of Panna, whose deposition was recorded in last year's Statement, was succeeded by his nephew Kunwar Jadvendra Singh. The young Chief was installed in March 1903. The administration of the State during his minority has been vested in a Diwan, assisted by a consultative Council under the general supervision of the Political Agent.

His Highness the Maharaja of Bijawar was entrusted on the 1st January 1903 with the management of his State, subject to certain conditions. His Highness the Nawab of Baoni was also invested with ruling powers, subject to certain securities for their proper exercise.

The affairs of Sikkim and Bhutan have been mentioned in the account of the Frontier States. *See* page 177. Bengal.

In Cooch Behar, though heavy rain caused some damage to the crops, the year was one of fair prosperity and the public health was good. The excise demand and land revenue were practically collected in full. The work of the police was satisfactory; and there was but little heinous crime.

NATIVE STATES.

In the matter of education the State compares favourably with neighbouring districts in British territory, though the results of the examinations held during the year were not so good as in 1901–02.

In Hill Tippera the people suffered from failure of the cotton and oil seed crops; otherwise the year was a prosperous one. The administration of the year was generally uneventful. Nearly £20,000 was spent on public works; but of this amount the greater portion was expended in Agartala, the State capital.

The administration of Udaipur, Bonai and Kharsawan was carried on as in the preceding year by managers appointed by Government working under the supervision of the Commissioner of Chota Nagpur. Serious disturbances broke out in the Seraikela in connection with the resettlement made by the Raja; and it was found necessary to depute a European deputy collector with a body of police in order to restore order. The object of the deputation was achieved; and a fresh settlement by Government Agency as prayed for by the *raiyats*, has, since the close of the year, been decided on. The material condition of the people in the Tributary and Political States of Chota Nagpur during the year was satisfactory. Good crops resulted in a slight fall in the price of good grains, and there were no outbreaks of disease.

In most of the Tributary Mahals of Orissa prices were lower than in the previous year; and, though the year was an unhealthy one, the material condition of the people was satisfactory. Collections in the five States under Government management were good except in Narsingpur, which suffered to some extent from drought. In Nayagarh a failure of crops, following on a previous bad year, caused some distress, while a certain degree of scarcity was experienced in Daspalla and Boad.

United Provinces.

The financial condition of the Rampur State was satisfactory; the year's revenue amounted to £220,000 of which £146,000 were from land and nearly £46,000 from interest on securities. The harvests of the greater part of the State are secured from drought, by a system of canals which bring the water of the various rivers and streams into use for irrigation. Elsewhere masonry wells were being constructed at the cost of the State, an experimental measure which will be further developed if success extends the action already taken. Increased attention was paid to education during the year under review. There was a good rainfall in the Tehri State in 1902–03, and scarcity which threatened the State in the preceding year was averted. The revenues of the State have increased by 56 per cent. since the present ruler assumed charge of the administration. They amounted in 1902–03 to over £23,000. The net income from forests was equal to that from land revenue.

Punjab States.

In the Phulkian States of the Punjab, plague was prevalent during the year under review. In Nabha and Jind the disease was more active than in the preceding year. In Patiala it was less virulent, but the campaign against it in the hills was not so satisfactorily conducted as in the plains.

During the minority of the Chief of Patiala the affairs of the State continued to be administered by the Council of Regency, in the constitution of which there was no change. Satisfactory results, were obtained under the new fiscal system. Settlement operations were impeded to some extent by the plague, and to a more serious extent by the hostility which had sprung up between landlords and tenants in connection with the question of tenant rights, which the absence of previous records rendered a difficult one. At the close of the year, however, the operations were in progress and a fair amount of work was completed.

In the States in the political charge of the Commissioner of Jullundur, the only event of political importance during the year under review was the death of Raja Bije Sen of Mandi in December 1902, and the succession to the Chiefship, in the absence of lawful male issue, of his illegitimate son, Tika Bhawani Singh.

Plague reappeared in Karputhala in October 1902, after a five months cessation, in the Phagwara Tahsil, to which for some time it was confined. Later, however, it spread to other tahsils, and finally became prevalent throughout the State. The disease also broke out in the Faridkot State

towards the end of December 1902. In other respects the health of the people in these two States was good. NATIVE STATES.

In the Kalsia State, in the political charge of the Commissioner of Delhi, further steps were taken to associate the Chief, Sardur Ranjit Singh, who is now 20 years of age, with the administration of the State. His civil and criminal powers were increased, and it was arranged that he should work with the Council in executive matters.

The agricultural and financial condition of the Pataudi and Loharu and Dujana States showed but little improvement. In the latter State there was an outbreak of plague. Measures were taken to combat the disease.

In the Simla Hill States division, the State of Bilaspur was managed by Wazir Lala Hari Chand during the continued absence of the Chief.

In the Keonthal State, Raja Bije Sain, who had reached 26 years of age, having accepted the conditions required by Government, was granted full powers from 26th June 1902; and the manager, Mian Durga Singh, was removed.

Wazir Bhagwan Das, the last of the hereditary Wazirs of the Jubbal State, died during the year under review. The Chief of the State is a minor. The State was placed in the charge of a Native Manager, and a Council was appointed to assist him. The affairs of the remaining Hill States do not call for any special remark.

The administration of the State of Bahawalpur remained during the year under the guidance of Colonel Grey, C.S.I. The Nawab, who had attained 20 years of age, carried on the duties of Superintendent during the absence of that officer on five months' leave. The work of demarcating a fixed boundary between the State and the adjacent districts of Mooltan and Mazaffargarh was concluded, and similar work on the Dera Ghazi Khan boundary was practically completed.

In October 1902 the Raja of Chamba was attacked by a serious illness, which incapacitated him from attending to the affairs of the State. Pending his recovery the administration of the State was satisfactorily conducted by his brother. The year was not a prosperous one: the harvests were comparatively poor; cattle disease was very prevalent; and both crime and civil legislation increased. The State Hospital continued to do useful work.

Nothing eventful happened on that part of the North-Western Frontier which is under the control of the Punjab Government.

The system of administration in the 15 Feudatory States of the Central Provinces remained unchanged during the year, except in the case of the Sakti State, where the mismanagement of affairs was serious enough to necessitate the transfer of the greater part of the administration to a Diwan selected by the Chief Commissioner. Central Provinces.

By the death of the Raja Bahadur Pratap Rudra Singh Deo in August 1902 the Sonpur State lost a capable and wise ruler, and the succession passed to his eldest son, who was installed by the Chief Commissioner in November 1902. The harvests of the year compared very favourably with those of the neighbouring Khalsa districts, and with cultivation and trade both steadily expanding, little difficulty was experienced in collecting the land revenue. Settlement work was pushed on vigorously, and the revised assessments recently introduced into several of the States worked very successfully. The year was healthy throughout, the price of food grains easy, and there was but little crime. There was marked improvement in the financial position of all the States, especially of those under direct Government management.

The season in the Travancore State was good, and the rainfall was above the average. Further progress was made in the survey and settlement. There was an increase of Forest settlement work, and a considerable increase in the quantity of timber removed by Government agency. Madras.

There was an increase in imports and a decrease in exports. The decrease occurred chiefly in the exports of cocoanut products, pepper, and tea. The figures were as follows: imports £837,000, exports £1,057,000, as against £689,000 and £1,132,000 respectively, in the preceding year.

NATIVE STATES.

The total expenditure on Public Works was £175,000, of which £53,000 was spent upon communications and £24,000 on irrigation. The revenue of the State showed a further increase. Including debt heads it amounted to £683,000, of which land revenue and salt contributed £154,000 and £143,000 respectively. The balance (including debt heads) was reduced from £680,000 to £662,000. The police force was slightly increased. The admissions into the jails were the smallest during the past decade. Steps were taken to improve the sanitary condition of the jails, but the death-rate was again high. There was a considerable increase in the work of the Vaccination Department.

In the Cochin State the season was favourable to agriculture, and the rainfall was higher than in any of the three preceding years. The current demand of land revenue was £52,000, of which 99·0 per cent. was collected. The correct figures of the arrear balance are not ascertainable, as certain old-standing arrears do not appear in the accounts. The total receipts and charges of the year under service heads amounted to £181,000 and £167,700 respectively, as against £184,000 and £167,600 in the preceding year. The year opened with a cash balance in the treasuries of £20,600 and closed with £14,800. The expenditure on Public Works amounted to £18,000. As in the preceding year, 448 miles of road were maintained. The Cochin State railway was completed and opened for traffic during the year.

The financial condition of the Pudukkottai State was satisfactory. The season was generally favourable, and the prices of the principal food-grains fell. The current demand of land revenue rose from £47,900 in 1901–02 to £49,400 in the year under review. Expenditure on Public Works was £10,800, of which £3,600 was spent on irrigation and £2,800 on roads.

In Banganapalle the rainfall was sufficient and there was a good harvest. The survey and demarcation of the State was nearly completed. The receipts for the year, including the opening balance and a survey loan from Government, amounted to £11,900, and the charges to £10,900.

In the Sandur State the rainfall was untimely and unevenly distributed, and the season was not a good one. However, the extent of land under occupation increased, and prices of food grains fell. The total revenue of the State was £3,832 and the expenditure £3,880.

Bombay.

Out of the 363 Native States under the political control at the Bombay Government, 15 were under British administration at the beginning of the year under review. Of these the principal States were Navanagar, in the Kathiawar Agency; Radhanpur, in the Palanpur Agency; Chota Udepur, Balasinor and Sunth, in the Rewa Kantha Agency; and Sachin, in the Southern Gujarat. The Chiefs of all these States were minors. During the year the Jam Saheb of Navanagar and the Chief of Sunth attained majority and were duly installed.

The other administrative changes which were effected in these States during the year were the abolition of the Kandesh Political Agency, the Dángs coming under the control of the Political Agent, Surat; and the redistribution for administrative purposes of the sub-divisions of the Kathiawar Agency, so as to form three subordinate Agencies instead of four sub-divisions as heretofore.

There was a very marked improvement in the season generally, the rains being abundant though late, and in some places irregular. The rabi crops yielded good outturns in all the Gujarat States with the exception of the Palanpur Agency, where locusts did much damage. Heavy rains in December ruined the crops in two talukas of Sangli and in Kurundvad Senior, but on the whole the season was favourable throughout the Dakhan. Prices were generally easier than in the preceding year, and all famine relief works were closed at the end of the monsoon. Public health improved and the birth-rate rose everywhere; but there was a material increase in the number of deaths on account of plague, which in range and virulence surpassed the record of previous years. Palanpur and Savantvadi were the only States entirely free from the disease; all other States suffered from it more or less severely. The most seriously affected agency was that of the Kolhapur and the Southern Mahratta country, in the latter of which alone there were more

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than 18,000 deaths from plague. The decrease in violent crime recorded in 1901–02 was fully maintained during the year under review; dacoity especially showed a very satisfactory diminution. Plague was responsible for a falling off in registration and civil legislation in the majority of States, as well as for a decrease in the number of schools and the attendance of pupils.

The aggregate revenue collections for the year amounted to £2,622,000, an increase of £11,500 over the preceding year, but still considerably below normal. The decline in the sea-borne trade of Cutch was arrested, but the customs revenues fell off slightly. The import trade of the Kathiawar maritime States showed a small reduction, but there was a further large increase of £50,000 in the export trade.

Leaving railways out of account, the amounts expended by the States under the control of the Government of Bombay on public works were generally small. In North Gujarat, the Cutch State expended £21,200 as against £14,600 in the preceding year; Palanpur, £3,515; and Cambay, £2,282. In the South Gujarat States, £6,740 was expended. In the Kathiawar States the outlay on public works, exclusive of famine works, amounted to £101,400; £2,600 was expended in Janjira; £5,100 in Savantvadi; £6,600 in the Satara Jaghirs; and in the Kolhapur State the expenditure amounted to £19,600, which was slightly in excess of that of the previous year.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

# CHAPTER XVII.

ARMY.

## ARMY.

The sanctioned establishment for 1902–03 was as follows :—

| | |
|---|---|
| British Troops | 73,509 |
| Miscellaneous Officers | 907 |
| Native Troops (including European Officers) | 146,745 |
| Total | 221,161 |
| Corresponding Total for 1901–1902 | 220,830 |

The Hyderabad contingent is not included in the above numbers.

The actual strength and distribution of the Army in India on the 1st April 1903 was as follows :—

| — | Number of Officers and Men. |
|---|---|
| PUNJAB COMMAND. | |
| *British.* | |
| Cavalry (3 regiments) | 1,960 |
| Artillery (23 batteries and companies) | 3,363 |
| Engineers | 9 |
| Infantry (14 battalions) | 14,163 |
| | 19,495 |
| *Native.* | |
| Cavalry (15 regiments) | 9,456 |
| Artillery ($7\frac{1}{3}$ batteries, and Native drivers of British batteries). | 3,478 |
| Sappers and Miners (2 companies) | 391 |
| Infantry (37 battalions) | 35,588 |
| | 48,913 |
| | 68,408 |
| BENGAL COMMAND. | |
| *British.* | |
| Cavalry (3 regiments) | 2,033 |
| Artillery (28 batteries and companies) | 4,542 |
| Engineers | 53 |
| Infantry (17 battalions) | 17,271 |
| | 23,899 |
| *Native.* | |
| Cavalry (11 regiments) | 7,079 |
| Artillery (Native drivers of British batteries). | 305 |
| Sappers and Miners (5 companies) | 893 |
| Infantry (31 battalions) | 27,298 |
| | 35,575 |
| | 59,474 |
| MADRAS COMMAND. | |
| *British.* | |
| Cavalry (2 regiments) | 1,290 |
| Artillery (14 batteries and companies) | 2,360 |
| Engineers | 51 |
| Infantry (10 battalions) | 10,074 |
| | 13,775 |

| — | Number of Officers and Men. |
|---|---|
| MADRAS COMMAND—*cont.* | |
| *Native.* | |
| Cavalry (3 regiments) | 1,721 |
| Artillery (2 batteries, and Native drivers of British batteries). | 744 |
| Sappers and Miners (8 companies) | 1,331 |
| Infantry (24 battalions) | 19,457 |
| | 23,253 |
| | 37,028 |
| BOMBAY COMMAND. | |
| *British.* | |
| Cavalry (1 regiment) | 648 |
| Artillery (27 batteries and companies) | 4,165 |
| Engineers | 65 |
| Infantry (12 battalions) | 11,989 |
| | 16,867 |
| *Native.* | |
| Cavalry ($7\frac{5}{8}$ regiments) | 4,812 |
| Artillery (1 battery and Native drivers of British batteries). | 1,188 |
| Sappers and Miners (9 companies) | 1,206 |
| Infantry (28 battalions) | 24,091 |
| | 31,297 |
| | 48,164 |
| IN CHITRAL. | |
| *British.* | |
| Engineers | 2 |
| | 2 |
| *Native.* | |
| Artillery ($\frac{1}{3}$ battery) | 85 |
| Sappers and Miners (1 company) | 193 |
| Infantry (1 battalion) | 743 |
| | 1,021 |
| | 1,023 |

| — | Number of Officers and Men. | — | Number of Officers and Men. |
|---|---|---|---|
| HYDERABAD CONTINGENT* :— | | GRAND TOTAL—*cont.* | |
| Cavalry (4 regiments) - - | 2,025 | | |
| Artillery (4 batteries) - | 522 | *Native.* | |
| Infantry (6 battalions) - - | 4,907 | Cavalry (40⅝ regiments) - - | 25,361 |
| | 7,454 | Artillery (14⅜ batteries, and Native drivers of British batteries). | 6,322 |
| CORPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA. | | Sappers and Miners (25 companies) - | 4,014 |
| | | Infantry (127 battalions) - - | 112,179 |
| Bodyguards (Governor General's and Governors'). | 268 | | 147,876 |
| Resident's escort, Nepal - - | 95 | | 221,914 |
| | 363 | Officers on the staff - - - | 671 |
| GRAND TOTAL. | | | 222,585 |
| *British.* | | | |
| Cavalry (9 regiments) - - | 5,931 | | |
| Artillery (92 batteries and companies) | 14,430 | | |
| Engineers - - - - | 180 | | |
| Infantry (53 battalions) - - | 53,497 | | |
| | 74,038 | | |

* The Hyderabad contingent was placed under the orders of the Commander-in-Chief in India at the end of the year 1902–03. Early in 1903–04 the Artillery was disbanded and one regiment of Cavalry was broken up, each of its three squadrons being added to one of the other regiments. The Cavalry was then incorporated in the Bombay Command and the Infantry in the Madras Command.

The establishment* was short by four battalions of Native Infantry remaining in China, and by the following Native troops in Somaliland :—

One-third battery Artillery.
One company Sappers and Miners.
One battalion Infantry.

There was an excess of British Infantry owing to a battalion, which would otherwise have been relieved, having been specially detained at Aden.

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The total of the Native Army Reserve in India on 1st April 1903 was 22,968.

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The net expenditure on the Army in 1902–03 was £16,221,402. The total in 1901–02 was £14,786,342.

---

The number of Volunteers in the whole of India on 1st April 1903 was as under :—

| Command. | Enrolled Strength. | Efficient. |
|---|---|---|
| Punjab - - - - - | 2,147 | 1,962 |
| Bengal - - - - - | 14,372 | 13,620 |
| Madras - - - - - | 10,061 | 9,744 |
| Bombay - - - - - | 5,916 | 5,654 |
| | 32,496 | 30,980 |

* The five battalions of Native Infantry regularly employed in the Colonies are not reckoned as part of the establishment.

ARMY.

On the 1st April 1902 the number of enrolled Volunteers was 31,397, of whom 29,479 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1902–03 was 792.

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The following changes in army organisation, &c. came into effect in 1902–03 :—

The Burma district was severed from the Madras command, and constituted a separate command under the direct orders of the Commander-in-Chief in India.

The Hyderabad contingent was placed under the orders of the Commander-in-Chief in India, and thus became a part of the regular Indian Army. (*See* note on preceding page.)

A brigade-division (three batteries) of field howitzers was added to the strength of the Royal Artillery in India; a corps of Native "Frontier Garrison Artillery" was formed, into which the existing Punjab Garrison Battery was absorbed; and the Ammunition Columns of the Royal Horse and Royal Field Artillery were reorganised.

The Submarine Mining Establishment was augmented and reorganised; a "Military Railway Company" was formed; and two service companies and a fortress company (for Aden) were added to the Bombay Sappers and Miners. Electrical engineer companies were attached to volunteer corps at various ports.

The establishment of the Hospital Assistant Branch of the Subordinate Medical Department was augmented; changes were made in the conditions of service of the Army Hospital Corps, the numbers of which were also increased; and the ambulance bearer service in India was reorganised, an "Army Bearer Corps" being formed.

Alterations were made in the class organisation, linking, &c. of several Native regiments. An addition of one British officer was made to the establishments of 64 regiments.

The designation of "Indian Staff Corps" was abolished on the 1st January 1903, the officers belonging to the corps being thenceforward designated "Officers of the Indian Army."

The pay of the British soldier serving in India was considerably increased.

On the occasion of the Coronation Durbar at Delhi the following favours and concessions to the Army in India were announced :—

The annual appointment of a limited number of Native officers as orderly officers for duty in attendance on His Majesty.

An extension of the system of the grant of honorary British rank to Native officers on retirement.

A temporary increase of the Order of British India.

The extension of the Order of British India to the Imperial Service Troops.

Extra "Meritorious Service" and "Long Service and Good Conduct" medals to the Native Army.

A money grant to all British and Native corps.

The release or mitigation of penalties of particular classes of military offenders in the British and Native armies.

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In June 1902 a contingent of His Majesty's Indian Army and the Imperial Service Troops arrived in this country for the purpose of taking part in the Coronation ceremonies. It numbered 1,000 of all ranks, and included representatives of as many regiments as possible and of nearly all the various classes from which the army is recruited. It remained in this country for about two months, and during its stay the conduct and bearing of the troops were admirable. A small contingent of members of the Indian Volunteer Corps also took part in the ceremonies.

## Military Operations.

In November 1902 it was found necessary to send a punitive expedition against certain sections of the Darwesh Khel Waziris. The force employed (nearly 3,800 strong, regular troops and militia) was under the command of Major-General C. C. Egerton, C.B., D.S.O. The work was successfully carried out, but not without some sharp fighting. Our casualties were five killed or died of wounds (including two British officers) and 15 wounded (including three British officers).

## Military Works.

The total expenditure on military works amounted to £1,058,368 in 1902–03 against £917,140 in 1901–02. The expenditure in 1902–03 includes an outlay of £550,779 on new works and £242,834 on repairs. Under the head of new works additions to the barrack and hospital accommodation for British and Native troops accounted for over £200,000.

## Marine.

The net expenditure on marine services amounted to £342,807 in 1902–03 as against £452,210 in 1901–02. In this amount are included the cost of the Royal Indian Marine, the contribution towards the expenses of His Majesty's ships employed in the Indian seas, the subsidy to the Admiralty for manning and maintaining the Indian Government defence vessels, and charges for pilot establishments and vessels, coast lights, and other smaller items.

On the 1st April 1903 the Royal Indian Marine consisted of ten sea-going vessels, six inland and harbour vessels, three torpedo boats, a submarine mining flotilla, and a number of small steamers, launches, &c. There was an establishment of 89 executive officers, 71 engineer officers, and 60 warrant officers ; and the Native crews of the vessels (seamen, artificers, and others) numbered in all 1,747.

# APPENDIX.

TABLE showing the NET REVENUE and EXPENDITURE in the several PROVINCES of INDIA and in ENGLAND.

| | Bengal. | | United Provinces of Agra and Oudh. | | Punjab. | | Burma. | | Central Provinces. | | Assam. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1901-02. | 1902-03. | 1901-02. | 1902-03. | 1901-02. | 1902-03. | 1901-02. | 1902-03. | 1901-02. | 1902-03. | 1901-02. | 1902-03. |
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 2,698,407 | 2,712,066 | 4,194,480 | 4,162,690 | 1,652,159 | 1,427,409 | 2,204,210 | 2,320,093 | 576,204 | 524,945 | 408,984 | 427,991 |
| Forest | 85,796 | 83,730 | 114,068 | 134,672 | 96,493 | 105,656 | 390,938 | 448,843 | 74,234 | 100,950 | 34,115 | 38,590 |
| Opium | 2,600,712 | 2,076,375 | 35,199 | 36,710 | 4,369 | 4,874 | 20,961 | 29,467 | 13,364 | 16,034 | 27,323 | 28,878 |
| Salt | 1,720,136 | 1,776,221 | — | — | — | — | 101,073 | 120,416 | — | — | — | — |
| Stamps | 1,256,361 | 1,294,043 | 553,211 | 530,186 | 267,836 | 260,111 | 148,755 | 173,270 | 102,763 | 96,356 | 62,842 | 67,889 |
| Excise | 1,004,107 | 1,051,772 | 492,870 | 553,947 | 173,157 | 177,622 | 361,533 | 383,434 | 120,286 | 149,658 | 188,801 | 194,405 |
| Provincial rates | 650,519 | 671,580 | 693,684 | 703,511 | 320,909 | 270,373 | 108,978 | 111,969 | 104,030 | 77,580 | 44,133 | 45,521 |
| Customs | 1,218,292 | 1,174,040 | 3,975 | 4,066 | *—1,074* | *—1,144* | 638,288 | 850,533 | 7,182 | 8,006 | — | — |
| Assessed taxes | 381,514 | 394,352 | 172,061 | 174,987 | 108,912 | 106,101 | 83,008 | 82,598 | 28,122 | 24,454 | 20,472 | 21,211 |
| Registration | 111,086 | 112,308 | 32,086 | 29,793 | 14,023 | 14,203 | 7,258 | 9,264 | 6,423 | 5,807 | 3,670 | 4,719 |
| Post office | *—22,727* | *—23,872* | *—12,338* | *—12,539* | *—10,535* | *—9,477* | *—15,590* | *—18,380* | *—4,042* | *—3,012* | *—3,261* | *—3,357* |
| Telegraph | — | — | — | — | — | — | — | — | — | — | — | — |
| Railways | 714,859 | 711,276 | 734,314 | 765,240 | 1,351,203 | 1,145,637 | 291,722 | 317,968 | 314,563 | 335,595 | 21,146 | 11,934 |
| Irrigation | *—162,619* | *—155,508* | 111,354 | 798,322 | 705,868 | 758,603 | *—119,667* | *—94,610* | — | *—6,592* | — | — |
| Other heads | 71,204 | 49,613 | *—1,901* | *—6,373* | 29,268 | 12,685 | 41,316 | 9,581 | 28,466 | 31,162 | 1,711 | *—1,520* |
| Total | 12,324,647 | 11,927,996 | 7,123,063 | 7,275,242 | 4,712,588 | 4,272,653 | 4,262,783 | 4,644,446 | 1,371,595 | 1,360,943 | 809,936 | 836,261 |
| EXPENDITURE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Interest | *—102,309* | *—102,512* | 42,359 | 46,693 | 4,034 | 10,757 | *—526* | *—577* | *—721* | *—278* | *—10* | *—50* |
| Army | — | — | — | — | — | — | — | — | — | — | — | — |
| Military works | 6,561 | 5,484 | 1,857 | 1,350 | 21,771 | 6,893 | 38,427 | 50,781 | 1,799 | 1,310 | 9,112 | 4,080 |
| Collection of revenue | 637,630 | 635,510 | 633,492 | 626,753 | 359,460 | 345,212 | 595,209 | 638,007 | 188,822 | 206,119 | 90,538 | 94,560 |
| Civil works | 720,530 | 704,103 | 402,042 | 484,221 | 285,113 | 338,504 | 592,529 | 635,755 | 145,003 | 187,700 | 149,787 | 168,402 |
| General administration | 160,621 | 185,059 | 119,450 | 129,031 | 88,991 | 90,423 | 87,734 | 104,944 | 40,973 | 45,798 | 22,929 | 27,327 |
| Law and justice | 681,589 | 681,754 | 411,742 | 402,110 | 262,395 | 256,173 | 210,119 | 202,524 | 78,050 | 79,579 | 44,485 | 45,286 |
| Police | 369,021 | 374,076 | 525,499 | 530,615 | 222,451 | 204,802 | 609,892 | 604,243 | 91,212 | 94,682 | 102,246 | 102,974 |
| Marine | *—15,779* | *—13,994* | — | — | — | — | 29,303 | 27,392 | — | — | 6,273 | 4,667 |
| Education | 232,560 | 271,528 | 134,860 | 153,138 | 88,147 | 94,468 | 67,509 | 71,615 | 39,492 | 53,630 | 26,474 | 27,207 |
| Ecclesiastical | 14,067 | 13,520 | 15,927 | 16,263 | 14,298 | 12,545 | 6,639 | 6,158 | 2,829 | 3,003 | 1,442 | 1,323 |
| Medical | 149,973 | 143,060 | 98,383 | 105,009 | 97,677 | 113,814 | 44,936 | 59,066 | 26,921 | 27,857 | 27,186 | 27,638 |
| Political | 2,905 | 4,683 | 9,511 | 8,064 | 127,621 | 46,805 | 26,378 | 25,119 | 2,663 | 2,870 | 13,044 | 11,406 |
| Scientific and minor | 38,502 | 27,370 | 24,478 | 17,363 | 19,462 | 15,157 | 16,250 | 13,888 | 9,417 | 6,989 | 3,745 | 2,853 |
| Miscellaneous civil charges | 465,278 | 489,330 | 248,237 | 249,765 | 123,184 | 116,834 | 71,833 | 73,019 | 48,876 | 47,559 | 14,193 | 15,035 |
| Other heads | 29,006 | 95,393 | *—35,413* | 16,670 | 126,180 | 78,486 | 58,775 | *—217,304* | 188,049 | 26,678 | 11,316 | 77,614 |
| Total | 3,390,155 | 3,514,364 | 2,632,424 | 2,737,045 | 1,840,783 | 1,730,873 | 2,455,007 | 2,294,630 | 863,376 | 783,497 | 522,760 | 610,322 |

*Table showing the Net Revenue and Expenditure in the several Provinces of India and in England—continued.*

| | Madras. | | Bombay and Sind. | | North-West Frontier Province. | | Berar.* | | India, General. | | England. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1901–02. | 1902–03. | 1901–02. | 1902–03 | 1901–02. | 1902–03. | 1901–02. | 1902–03. | 1901–02. | 1902–03. | 1901–02. | 1902–03. |
| **Revenue.** | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 3,355,520 | 3,543,294 | 2,296,001 | 2,015,623 | 57,187 | 109,557 | | 466,662 | 90,489 | 79,317 | — | — |
| Forest | 167,916 | 172,869 | 158,395 | 154,849 | 860 | 6,735 | | 811,146 | 31,006 | 36,989 | — | — |
| Opium | — | — | 540,697 | 659,293 | 181 | 451 | | — | *—801* | *—797* | *—1,935* | *—4,446* |
| Salt | 1,242,098 | 1,323,140 | 1,544,258 | 1,596,626 | — | — | | — | 1,066,426 | 1,115,530 | — | — |
| Stamps | 572,910 | 542,064 | 411,268 | 392,790 | 9,482 | 25,577 | | 29,363 | 24,007 | 22,752 | — | — |
| Excise | 951,720 | 1,039,741 | 666,383 | 686,801 | 4,850 | 12,819 | | 60,920 | 65,063 | 73,062 | — | — |
| Provincial rates | 580,451 | 601,134 | 214,602 | 188,608 | 10,960 | 22,969 | | 37,541 | 9,181 | 10,663 | — | — |
| Customs | 297,698 | 316,275 | 1,569,513 | 1,476,635 | — | *—30* | | 597 | 643 | 869 | — | — |
| Assessed taxes | 201,680 | 208,000 | 263,813 | 272,088 | 2,899 | 7,606 | | 8,057 | 99,745 | 103,218 | — | — |
| Registration | 96,473 | 95,668 | 39,202 | 35,003 | 719 | 2,047 | | 2,680 | 1,143 | 1,167 | — | — |
| Post office | *—7,038* | *—6,989* | *—6,851* | *—6,853* | 149 | *—1,516* | | *—599* | 280,393 | 269,668 | *—95,077* | *—99,915* |
| Telegraph | — | — | — | — | — | — | | — | 290,969 | 224,021 | *—287,046* | *—256,784* |
| Railways | 515,773 | 557,396 | 1,544,653 | 1,523,369 | — | — | | — | 1,770,165 | 1,381,257 | *—6,411,782* | *—6,520,623* |
| Irrigation | 221,539 | 141,334 | *—19,598* | *—79,212* | 9,459 | 38,330 | | — | *—572,022* | *—605,002* | *—1,442* | *—1,917* |
| Other heads | 319,348 | 319,570 | 25,040 | *—68,390* | 6,530 | 8,362 | | *—101,023* | 155,816 | 119,675 | *—20,743* | *—26,869* |
| Total | 8,516,088 | 8,853,493 | 9,247,376 | 8,847,236 | 103,276 | 232,907 | | 515,344 | 3,312,223 | 2,832,289 | *—6,818,025* | *—6,910,554* |
| **Expenditure.** | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Interest | *—27,347* | *—30,026* | *—69,791* | *—77,464* | *—356* | *—454* | | *—1,055* | *—1,613,105* | *—1,726,084* | 2,926,631 | 2,846,068 |
| Army | 1,930,579 | 2,055,172 | 2,322,039 | 2,428,088 | — | — | | — | 6,427,431 | 1,840 483 | 4,106,294 | 4,897,659 |
| Military works | 5,248 | 4,731 | 9,300 | 10,754 | — | — | | 758 | 788,452 | 909,620 | 34,612 | 62,607 |
| Collection of revenue | 1,105,772 | 1,120,257 | 818,696 | 814,714 | 19,985 | 45,652 | | 31,983 | 97,325 | 101,921 | 35,479 | 34,170 |
| Civil works | 401,580 | 443,455 | 315,015 | 402,065 | 48,752 | 127.045 | | 25,276 | 99,052 | 111,730 | 76,527 | 78,883 |
| General administration | 108,423 | 126,831 | 139,591 | 155,244 | 6,457 | 16,317 | | 12,535 | 328,474 | 370,631 | 259,112 | 251,474 |
| Law and justice | 319,917 | 316,146 | 332,381 | 332.925 | 11,211 | 30,304 | | 9,424 | 93,371 | 104,638 | 1,317 | 275 |
| Police | 280,335 | 287,576 | 595,737 | 381,972 | 21,883 | 64,166 | | 26,115 | 44.221 | 39,334 | 994 | 1,675 |
| Marine | 884 | 1,133 | *—905* | *—1,710* | — | — | | — | 118,683 | 77,402 | 314,351 | 247,914 |
| Education | 160,206 | 202,661 | 194,030 | 211,083 | 1,846 | 5,037 | | 9,643 | 11,220 | 13,527 | 2,734 | 1,882 |
| Ecclesiastical | 23,291 | 22,610 | 22,633 | 21,352 | 784 | 2,157 | | 40 | 10,297 | 11,406 | 499 | 646 |
| Medical | 183,557 | 198,833 | 134,244 | 160,043 | 2,518 | 6,968 | | 7,227 | 24,932 | 27,451 | 3,513 | 6,968 |
| Political | 6,153 | 6,339 | 60,550 | 72,193 | 72,058 | 139,858 | | — | 359,163 | 494,879 | 7,028 | 7,249 |
| Scientific and minor | 21,866 | 14,648 | 25.342 | 17,987 | 530 | 1,374 | | 1,086 | 216,954 | 253,583 | 30,732 | 32,926 |
| Miscellaneous civil charges | 216,701 | 225,703 | 264,214 | 268,596 | 4,451 | 14,569 | | 14,200 | *—152,476* | *—157,493* | 2,254,623 | 2,283,141 |
| Other heads | 263,251 | 96,774 | 946,718 | 151,179 | 1,987 | 1,626 | | 20,190 | 295,270 | 614,579 | 4,976 | 2,925 |
| Total | 5,000,216 | 5,092,846 | 5,999,794 | 5,349,021 | 192,106 | 454 619 | | 157,422 | 7,149,264 | 8,087,607 | 10,059,422 | 10,756,462 |

* The figures for Berar are from the 1st October 1902 only.

LIBRARY
OF THE
BOMBAY
BRANCH
OF THE
ROYAL ASIATIC SOCIETY

EAST INDIA (PROGRESS AND CONDITION).

# STATEMENT

EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1903-04.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

FORTIETH NUMBER.

(*Presented pursuant to Act* 21 & 22 *Vict. c.* 106, *s.* 53.)

India Office,
30 May 1905.

ARTHUR GODLEY,
Under Secretary of State for India.

*Ordered, by* The House of Commons, *to be Printed,*
30 *May* 1905.

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130.

# NOTE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Of these reports, many are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces, and to the Government of India, for consideration and review before transmission to England. One annual volume largely used in the preparation of the Statement is the "Finance and Revenue Accounts of the Government of India," containing the complete annual statement of the revenue and expenditure—Imperial, Provincial, and Local—of every public department in each Province of India, including the Railways, *and other* commercial enterprises which are under Government management.

Of the reports mentioned above, some, which deal with the operations of important departments and require the careful consideration of officers in India, are not received at the India Office till about a year after the period to which they refer. It is at about the same date that the Finance and Revenue Accounts are received.

It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year; and it is often necessary to exceed the prescribed date by some weeks.

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# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.

### ADMINISTRATION.



LIST of the holders in 1903–04 of the more important appointments connected with the administration of India, those appointed during the year being shown in *italics*.

| OFFICE. | | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| Secretary of State - - - | The Right Hon. Lord George Hamilton. | 5 July 1895 | |
| | *The Right Hon. St. John Brodrick.* | 10 October 1903 | |
| Permanent Under Secretary of State. | Sir Arthur Godley, K.C.B. - | 30 September 1883 | |
| Parliamentary Under Secretary of State. | Earl Percy - - | 18 August 1902 - | |
| | *The Earl of Hardwicke* (2nd time). | 12 October 1903 | |
| Members of the Council of India | Sir Charles H. T. Crosthwaite, K.C.S.I. | 3 March 1895 | In succession to Sir R. H. Davies. |
| | Sir Steuart C. Bayley, K.C.S.I., C.I.E. | 16 September 1895 | In succession to Sir H. C. Rawlinson. |
| | F. C. Le Marchant - | 27 February 1896 | In succession to B. W. Currie. |
| | General Sir J. J. H. Gordon, K.C.B. | 1 January 1897 | In succession to Sir O T. Burne. |
| | Sir Dennis Fitzpatrick, K.C.S.I. | 24 April 1897 | In succession to Sir J. Strachey. |
| | Sir J. L. Mackay, G.C.M.G., K.C.I.E. | 27 April 1897 | In succession to Robert Hardie. |
| | Sir John Edge, K.C. - | 30 March 1898 | In succession to Sir C. Turner. |
| | Sir Philip P. Hutchins, K.C.S.I. | 1 August 1898 | In succession to Sir A. J. Arbuthnot. |
| | Sir James Westland, K.C.S.I. | 8 August 1899 | Died 9 May 1903. |
| | Lieut.-General Sir A. R. Badcock, K.C.B., C.S.I. | 26 March 1901 | In succession to Sir D. M. Stewart. |
| | Sir William Lee-Warner, K.C.S.I. | 12 November 1902 | In succession to Sir J. Peile. |
| | Rt. Hon. Sir A. P. Macdonnell, G.C.S.I. | 17 January 1903 | In succession to Sir A. Lyall. |
| | *J. F. Finlay*, C.S.I. - - | 10 May 1903 | In succession to Sir J. Westland. |
| Governor-General - - - | The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E. | 6 January 1899 | |
| Members of Council - | General Viscount Kitchener of Khartoum, G.C.B., O.M., G.C.M.G. (extraordinary), Commander-in-Chief. | 28 November 1902 | |
| | Sir Thomas Raleigh, K.C.S.I. | 3 April 1899 | |
| | Sir E. F. Law, K.C.M.G. - | 31 March 1900 | |
| | Major-General Sir E. R. Elles, K.C.B. | 11 April 1901 | |
| | Sir A. T. Arundel, K.C.S.I. | 18 May 1901 | |
| | Sir D. J. Ibbetson, K.C.S.I. | 5 March 1902 | |
| Lieutenant-Governor of Bengal - | J. A. Bourdillon, C.S.I. - | 22 November 1902 | Officiating. |
| | *Sir A. H. Leith Fraser*, K.C.S.I. | 2 November 1903 | |
| Lieutenant-Governor of the United Provinces of Agra and Oudh. | Sir J. J. D. La Touche, K.C.S.I. | 14 November 1901 | |
| Lieutenant-Governor of the Punjab. | Sir Charles M. Rivaz, K.C.S.I. | 6 March 1902 | |
| Lieutenant-Governor of Burma - | Sir F. W. R. Fryer, K.C.S.I. | 1 May 1897 | Formerly Chief Commissioner. |
| | *Sir H. S. Barnes*, K.C.S.I., K.C.V.O. | 4 April 1903 | |

ADMINISTRATION.

| OFFICE. | —— | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| Chief Commissioner of the Central Provinces. | J. P. Hewett, C.S.I., C.I.E. | 2 November 1903 | |
| | *F. S. P. Lely*, C.S.I. | 18 March 1904 | Officiating. |
| Chief Commissioner of Assam | J. B. Fuller, C.I.E. | 29 April 1902 | |
| | *C. W. Bolton*, C.S.I. | 27 April 1903 | Officiating until 27 July. |
| Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara. | Sir A. H. T. Martindale, K.C.S.I. | 9 March 1898 | |
| Resident in Mysore and Chief Commissioner of Coorg. | Lieutenant-Colonel Sir D. Robertson, K.C.S.I. | 10 February 1897 | |
| | *Sir J. A. Bourdillon*, K.C.S.I. | 5 November 1903 | |
| Resident, Hyderabad | Lieut.-Colonel Sir D. W. K. Barr, K.C.S.I. | 1 September 1900 | |
| Agent to the Governor-General in Central India. | C. S. Bayley, C.S.I. | 3 November 1901 | |
| | *Major H. Daly*, C.I.E. | 6 November 1903 | Officiating until 20 March 1904. |
| Resident in Kashmir | E. G. Colvin | 17 March 1903 | Officiating from 24 September 1902. |
| Resident and Agent to the Governor-General, Baroda. | Lieutenant-Colonel M. J. Meade, C.I.E. | 5 November 1901 | |
| Agent to the Governor-General in Baluchistan and Chief Commissioner of British Baluchistan. | Colonel C. E. Yate, C.S.I., C.M.G. | 24 December 1900 | |
| Chief Commissioner of the N.W. Frontier Province. | Lieut.-Colonel H. A. Deane, C.S.I. | 9 November 1901 | |
| Political Resident, Persian Gulf and H.B.M.'s Consul-General at Bushire. | Major (temporary Lieut.-Colonel) C. A. Kemball, C.I.E. | 1 July 1901 | Officiating from 7 April 1900. |
| Governor of Madras | Lord Ampthill, G.C.I.E. | 28 December 1900 | |
| Members of Council | Sir Henry M. Winterbotham, K.C.S.I. | 19 December 1898 | |
| | Sir J. Thomson, K.C.S.I. | 9 May 1901 | |
| | *G. Stokes*, C.S.I. | 9 November 1903 | In succession to Sir H. M. Winterbotham. |
| Governor of Bombay | Lord Northcote, G.C.I.E., C.B. | 17 February 1900 | |
| | *Lord Lamington*, G.C.M.G., G.C.I.E. | 12 December 1903 | |
| Members of Council | Sir J. Monteath, K.C.S.I. | 6 August 1900 | Acting Governor, 6 Sept.—12 Dec. 1903. |
| | E. McG. H. Fulton, C.S.I. | 24 April 1902 | |
| Political Resident, Aden | Major-General P. J. Maitland, C.B. | 25 June 1901 | |

Under the treaty concluded in 1902 with His Highness the Nizam of Hyderabad, of which the text was given in the last decennial issue of this Statement (1901–02, pp. 29 and 30), the Government of India acquired permanent administrative control over Berar, and in October 1903 the administration of that territory was made over to the Chief Commissioner of the Central Provinces.

LEGISLATION.

## LEGISLATION.

Between the 1st April 1903 and the 31st March 1904, thirteen Acts were passed by the Council of the Governor-General for making Laws and Regulations, three by the Legislative Council of Madras, five by that of Bombay, four by that of Bengal, two by that of the United Provinces of Agra and Oudh, three by that of the Punjab, and five by that of Burma. Five Regulations were also passed by the Governor-General in Council, on the recommendation of the local Governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3.

*India.*

The following were the more important of the measures referred to :—

Indian Tariff (Amendment) Act, 1903.

Act XII. of 1903 "further to amend the Indian Tariff Act, 1894," provided for the continuation of the additional duties on sugar then in force until the 31st March 1904, when it was expected that the greater part of the

stocks of bounty-fed sugar in the European countries which were parties to the Sugar Convention would be exhausted. LEGISLATION.

Act XIII. of 1903 "further to amend the Lepers Act, 1898," provided for the segregation and medical treatment of lepers belonging to Native States. Lepers (Amendment) Act, 1903.

Act XIV. of 1903 "to give effect to the Foreign Marriages Order in Council, 1903," was passed in order to give effect to an Order in Council regulating the procedure of a marriage-officer under the Foreign Marriage Act, 1892 (55 & 56 Vict. c. 23.), in regard to the notice to be given of an intended marriage. Indian Foreign Marriage Act, 1903.

Act XV. of 1903 "to consolidate and amend the law relating to extradition and rendition of criminals," was passed with the double object of providing for British India an efficient version of the procedure established by the Extradition Act, 1870 (British Act), in regard to extradition between British India and the Powers which have treaties with the British Government, and, secondly, of consolidating and amending the Extradition Act, 1879 (Indian Act), in regard to the procedure in cases of extradition between British India and Native States. Indian Extradition Act, 1903.

Act XVI. of 1903 "to make better provision for the organisation and administration of municipalities in the Central Provinces," made provision for the realisation of municipal taxes and the prevention of the accrual of arrears, the suppression of disorderly houses, the destruction of stray dogs, the sanitation of small towns, and various other matters of minor importance. Central Provinces Municipal Act, 1903.

Act I. of 1904 "to provide for the regulation of the possession and sale of all poisons in certain local areas, and the importation, possession and sale of white arsenic generally," provided for the control of the sale of poisons generally within municipalities and cantonments, authorised the prohibition of the importation of white arsenic into British India except under licence, and empowered local Governments to regulate the sale of that poison. The Act also took power for the Governor-General in Council to apply to any other poisons the provisions relating to white arsenic. Protection was secured for acts done in good faith by medical men, chemists, and others. Poisons Act, 1904.

Act II. of 1904 "to consolidate and amend the law relating to the courts in the Central Provinces," introduced the separation, as far as practicable, of the civil from the criminal and revenue branches of the administration, and provided that appeals in important suits should lie direct from the District Court to the Court of the Judicial Commissioner. Central Provinces Courts Act, 1904.

Act III. of 1904 "to make further provision regarding the borrowing powers of certain local authorities" provided for the borrowing of money by certain local authorities, with the previous sanction of the Government of India, by means of the issue of short-term bills, and in any manner authorised by law for the purpose of discharging loans previously contracted. Local Authorities Loan Act, 1904.

Act IV. of 1904 "to provide for the regulation of the Border Military Police Force in the North-West Frontier Province" was designed to supply the want of a code to govern the members of the force and of legal authority for enforcing discipline among them. North-West Border Military Police Act, 1904.

Act V. of 1904 "to amend the Indian Official Secrets Act, 1899," defined the criminality of the actions with which the Act deals in such a way as to make them more susceptible of proof, and it was made clear that the Act applies to the divulging of secret information connected with the civil administration as well as naval and military affairs. Amendments were also introduced to provide for the immediate arrest and preliminary examination of offenders. Indian Official Secrets Act, 1904.

Act VI. of 1904 "further to amend the Transfer of Property Act, 1882," extended the principle of compulsory registration of documents, in order to lessen the difficulties to which the existing law gave rise in regard to priority between registered and unregistered instruments. Transfer of Property (Amendment) Act, 1904.

Act VII. of 1904 "to provide for the preservation of ancient monuments and of objects of archæological, historical, or artistic interest," was designed to secure the preservation to India of its ancient monuments, with particular reference to those in the hands of private owners, to control the traffic in Ancient Monuments Preservation Act, 1904.

LEGISLATION.

antiquities by reserving power to prevent the removal from British India of any antiquities it may be deemed desirable to retain, and to prevent the excavation by ignorant or unauthorised persons of sites of historic interest and value.

Indian Universities Act, 1904.

Act VIII. of 1904 "to amend the law relating to the Universities of British India" is referred to in the chapter of this review dealing with education.

Madras Coast Lights Act, 1904.

Act IX. of 1904 "to authorise the levy of dues on vessels for the provision of lights on the coast of the Presidency of Madras," authorised the levying of dues in order to meet the cost of the extensive scheme of lighthouse construction and illumination which has been undertaken.

Co-operative Credit Societies Act, 1904.

Act X. of 1904 "to provide for the constitution and control of co-operative credit societies" was passed with the object of providing the requisite legal basis for the establishment in India of agricultural banks, or—to use a more appropriate expression—of co-operative credit societies, in order to furnish some means of obtaining capital, especially in connection with agricultural operations, otherwise than at usurious rates of interest. The Act lays down the fundamental conditions which must be observed, and also serves to give such societies a corporate existence without resort to the elaborate provisions of the Companies Act. The experiment will be watched with great interest, and annual reports will be submitted to the Secretary of State.

Indian Tariff (Amendment) Act, 1904.

Act XI. of 1904 "to revive and continue section 8(B) of the Indian Tariff Act, 1894," enabled the Government of India to continue to levy after the 31st March 1904 (*see* Act XII. of 1903) special duties on sugar imported from countries which, by maintaining high protective duties, render possible combinations to manipulate the price of sugar.

*Madras.* Madras Impartible Estates Act, 1903.

Act II. of 1903 was intended to provide a permanent enactment to take the place of the Madras Impartible Estates Act, 1902 (*see* last year's issue of this statement, p. 4). Its object was to secure, so far as practicable, the preservation of the ancient *zamindaris* of the Presidency.

*Bombay.* Bombay Land Record of Rights Act, 1903.

Act III. of 1903 "to provide for the preparation and maintenance of a record of rights in the lands of the Bombay Presidency," was passed in order to facilitate the compilation of a record correctly representing the actual beneficial occupancy of, and interest in, land in the Presidency.

*Bengal.* Chota Nagpur Tenancy (Amendment) Act, 1903.

Act V. of 1903 "to amend the Chota Nagpur Landlord and Tenant Procedure Act and the Chota Nagpur Commutation Act, 1897," introduced various amendments in the statute law relating to landlord and tenant in the Chota Nagpur Division.

Bengal Settled Estates Act, 1904.

Act III. of 1904 "to facilitate the settlement of family estates in Bengal" provided facilities for the family settlement of immovable property in Bengal, with the object of preserving old or wealthy families from decay, maintaining their territorial influence, and preventing the subdivision of estates of historical and political importance.

*United Provinces.* Bundelkhand Encumbered Estates Act, 1903.

Act I. of 1903 "to consolidate and amend the law providing for the relief of encumbered estates in Bundelkhand," was designed to relieve indebted proprietors in the Bundelkhand districts, the misfortunes which had befallen those districts during the previous ten years and the ever-increasing indebtedness of the landowning classes having made remedial measures necessary.

Bundelkhand Alienation of Land Act, 1903.

Act II. of 1903 "to amend the law relating to agricultural land in Bundelkhand," placed restrictions on the alienation of agricultural land in order to ensure the success of Act I., the experience of the Jhansi Encumbered Estates Act, 1882, having shown the necessity for such restrictions.

*Punjab.* Punjab Court of Wards Act, 1903.

Act II. of 1903 "to consolidate and amend the law relating to the Court of Wards in the Punjab" constituted a single Court of Wards for the province, with Deputy Commissioners as its local agents, in place of the separate Courts of Wards for each district, which had previously existed.

Punjab Loans Limitation Act, 1904.

Act I. of 1904 extended from three to six years the period of limitation of suits for the recovery of money due on account of money lent or advanced, or in respect of goods supplied, or on bonds, bills of exchange, or promissory notes.

LEGISLATION.

*Burma.*

Act III. of 1904 "to amend the law relating to Excise in Burma" enabled the local Government to make, by proclamation, additions to the list of intoxicating drugs of which the sale and possession may be restricted under the provisions of the Excise Act, 1896. The circumstances which led to this legislation were the large increase in the sale of cocaine in Rangoon, and the noxious results found attendant on the use of the drug.

Burma Excise Law (Amendment) Act, 1904.

Act IV. of 1904 was passed for the purpose of taking power under the Upper Burma Towns Regulation, 1891, to require reports to be made of the arrival of strangers in certain towns in Upper Burma.

Upper Burma Towns Regulation (Amendment) Act, 1904.

## CHAPTER II.

## LOCAL SELF-GOVERNMENT.

GENERAL.

Local self-government, municipal and rural, in the form in which it now prevails in India, is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and the various provincial Acts passed about that time, which form the basis of the provincial systems at present in force. Municipal committees now exist in most places having any pretention to importance, and have charge of municipal business generally, including the care and superintendence of streets, roads, fairs and markets, open spaces, water supply, drainage, education, hospitals, and the like. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, education, hospitals, and dispensaries in rural districts. A large proportion of their income is provided by provincial rates. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1903–04, apart from loans, sale of securities, and such-like extraordinary receipts, was £3,327,700. The sources of this income are shown in the table on the last page of this chapter. Of the revenue classed as "local," amounting to £3,263,500, the rates levied on land, for expenditure on roads, schools, hospitals, and general purposes, account for nearly 72 per cent.; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, and receipts from corporate property. The balance consists of grants by the Government for educational and other purposes.

The income of the port funds, exclusive of loans, &c., amounted in 1903–04 to £1,411,200.

The revenue of cantonment funds amounted to £196,750; that of town and bazaar funds came to £97,000; and other miscellaneous funds had a revenue amounting to £143,600.

Thus, the revenue managed by all the various local bodies amounted in 1903–04 to nearly £8,500,000, besides large sums proceeding from loans and sale proceeds of investments.

### MUNICIPALITIES.

MUNICIPALITIES. General.

The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals Bombay, Calcutta, and Madras. In the majority of towns, most of the commissioners or members of the committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all the members, are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere largely exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

MUNICIPALITIES.

The sources of municipal revenue, apart from loans and Government contributions, are usually divided under the two heads, "Taxation," and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces, and Bombay; and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. There are also water rates and conservancy rates, tolls on roads and bridges, and taxes on animals and vehicles, and in some places a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses, and fees of various kinds.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the members of the committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in 1903–04:—

| | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Natives. |
| *Presidency Towns, &c.:—* | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | Return not available. | | | |
| Bombay | 1 | 72 | — | 16 | 56 | 7 | 65 | 12 | 60 |
| Madras | 1 | 33 | 1 | 8 | 24 | 9 | 24 | 7 | 26 |
| Rangoon | 1 | 25 | — | 6 | 19 | 3 | 22 | 13 | 12 |
| *District Municipalities:—* | | | | | | | | | |
| Bengal | 161 | 2,236 | 128 | 948 | 1,160 | 336 | 1,900 | 261 | 1,975 |
| Bombay (including Karachi). | 165 | 2,252 | 473 | 898 | 881 | 603 | 1,649 | 181 | 2,070 |
| Madras | 60 | 944 | 68 | 426 | 450 | 208 | 736 | 172 | 772 |
| United Provinces | 104 | 1,395 | 170 | 195 | 1,030 | 345 | 1,050 | 267 | 1,128 |
| Punjab* | 187 | 1,689 | 313 | 597 | 779 | 365 | 1,324 | 126 | 1,563 |
| North-West Frontier Province.* | 12 | 172 | 57 | 115 | — | 58 | 114 | 30 | 142 |
| Central Provinces | 46 | 576 | 21 | 163 | 398 | 125 | 451 | 62 | 514 |
| Berar | 12 | 179 | 2 | 105 | 72 | 55 | 124 | 25 | 154 |
| Assam | 14 | 141 | 24 | 70 | 47 | 50 | 91 | 30 | 111 |
| Burma | 40 | 518 | 161 | 262 | 95 | 191 | 327 | 148 | 370 |

* Including "notified areas."

The total indebtedness of municipalities amounted at the end of 1903–04 to £8,501,900, of which £2,428,300 was owed by the Calcutta Municipality and £3,161,400 by Bombay City. Against this total has to be set £737,600 standing at credit of the various sinking funds.

BENGAL. Calcutta.

The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of a chairman and 12 members, who are selected from among the commissioners, four by the elected, and four by the

MUNICIPALITIES.

nominated commissioners, and four by the Local Government. In discussing the views expressed by a special committee appointed by the Corporation to review the annual report on their behalf, respecting the administrative defects noted in the year's working, the Lieutenant-Governor says that he is fully satisfied that the period since the passing of the Act of 1899, by which the Corporation was remodelled, has been one of continuous, and for the most part successful, effort after reform, though he recognises that much still remains to be done. The re-organisation of the Accounts Department has made some progress, though Messrs. Lovelock and Lewes, Accountants and Auditors, who audited the accounts in 1904, found several defects, in spite of a "continuous and painstaking struggle against defective machinery and organisation."

The financial position of the Corporation is not unsatisfactory, and though the requirements of the city necessitate increase of expenditure, there is a considerable margin of taxation between the present incidence (19½ per cent.) of the consolidated rate and the legal maximum (23 per cent.). The question of instituting a Calcutta improvement scheme, on the lines of the Bombay scheme, had for some time been under consideration, but was not finally settled during the year under report. The revenue of the year, apart from extraordinary and debt headings, was £424,000, showing a satisfactory increase due to higher receipts from taxation. The expenditure on revenue account was £443,300, and the cash balances at the end of the year were reduced to £41,600. Of the receipts £359,100 accrued from municipal rates and taxes, which included, as in the previous year, a general rate of 9½ per cent., and water, lighting, and sewage rates aggregating 10 per cent., besides taxes on animals and vehicles and on trades and professions, &c. Collection of the rate continued to show improvement, the ratio of collections to the demand being over 96 per cent. The incidence of the net receipts from consolidated rates per head of the population was nearly Rs. 5⅔; and including other taxes the total incidence of taxation was nearly Rs. 6⅔ per head. The total assessed valuation of the city rose to £1,653,900. Of the above expenditure, £111,700 was incurred in connection with water-supply, £30,800 on sewerage, £34,900 on lighting, and £256,000 on general purposes, including conservancy, loan services, &c. Besides all this, £252,700 was spent from loan funds, chiefly from the drainage and miscellaneous loan, but also from the water supply loan, and to a small extent from the loan raised for plague. Four per cent. loans to the amount of £300,000 were floated during the year at an average rate slightly above par, for drainage and water-supply and miscellaneous purposes. The indebtedness of the Corporation increased by a net sum of £249,200, and stood at £2,428,700 at the end of the year, which is well within the legal limit.

Interior of Bengal.

The municipalities in the interior of Bengal numbered 161, of which four were constituted about the beginning of the year 1903–04. The incomes of the municipalities, excluding debt heads, amounted to £299,700, of which £237,900 came from taxation. The taxes are levied either on persons, according to their circumstances and property, or on holdings, at a rate generally 7½ per cent. of the assessed annual value, besides lighting and water rates; there are no octroi duties. The general question of improving the procedure of assessment engaged the attention of the Government, and a scheme was formulated for a trained staff of permanent assessors, the employment of whom should be optional for each municipality. The total expenditure of the funds, excluding debt heads, was £300,300, of which £29,100 was for water-supply, £11,100 for drainage, £87,100 for conservancy, £34,000 for hospitals and dispensaries, and £51,700 for buildings and roads. The closing balances amounted to £62,900, being increased by the inability of the Howrah municipality to utilise the loan funds received from Government for drainage and other purposes.

There has been a marked increase of activity in the direction of providing water-supply and drainage, and the general advance in municipal government has been further shown in the larger number of meetings held, and the better attendance at each.

United Provinces.

In the United Provinces the rules under the Act of 1900 were completed and a municipal manual was placed in the hands of the boards during the year 1903–04. The municipal boards numbered 104, as in previous years; but after the close of the year, 14 of the more backward were converted

into "notified areas." Octroi duties were levied in 82 towns; thirty-five schedules were entirely recast during the year, and upwards of 30 modified. The income of the municipalities, excluding loans, was £391,300, of which £282,800 accrued from taxation. Of the taxation revenue, octroi duties accounted for £204,900, compared with £197,900 in the preceding year, a gratifying increase in view of the widespread epidemic of plague. The incidence of taxation as a whole rose to Re. 1¼ per head of the population in municipal areas. Government contributions amounted to about £20,000, of which one-half was distributed among the poorer towns to enable them to carry out measures against the plague, and £4,000 was distributed to the Allahabad, Lucknow, and Cawnpore boards to help them to meet heavy plague charges. The loans raised included a total of £16,000 from the Government, and £67,000 raised by the Cawnpore board as a consolidated loan in the open market. The expenditure also showed an increase, amounting to £413,300, besides £41,000 for repayment of loans, &c. It included £165,200 spent on water supply, drainage and conservancy, and £35,800 on police, £16,200 on public instruction, and £47,300 on roads and buildings. The closing balances at the credit of the boards amounted to £135,600, showing a considerable increase owing to the Cawnpore board having still in hand a large part of their loan. MUNICIPALITIES.

There were in the Punjab 139 municipalities, besides 48 notified areas, which have a modified form of municipal government. Elected members serve on 107 of the municipal committees, the proportion being generally two elected to one nominated member. The total income of the municipalities and notified areas, excluding loans and extraordinary receipts, was £328,900, of which £202,900 was raised by octroi duties, in force in 142 towns. The revision of the octroi schedules and of the standards of consumption which are used to detect and check the octroi taxation of through traffic, were deferred pending the decision of the Government of India as to the maximum rates to be levied, but these measures require to be taken in hand. The average incidence of taxation was Re. 1½ per head of the municipal population. The receipts under "extraordinary and debt" amounted to £46,100, chiefly loans from Government. The expenditure was £366,600, including £16,300 for repayment of loans, &c., £47,600 for fire brigades, lighting and police, £41,000 for education, £106,300 for water supply, drainage, and conservancy, and £28,100 for roads and buildings.. The aggregate balances at credit of the municipalities at the end of the year amounted to £129,900, which was higher than at the beginning, but some of them fell below the prescribed minimum, chiefly owing to plague, which was rife in the Delhi, Lahore, Jullundur, and Rawalpindi divisions. Punjab.

In the Frontier Province there were 10 municipalities and two notified areas, with a total income of £34,000, expenditure amounting to £34,900 and a closing balance of £12,600. The Kohat municipality owned a large part of this balance, and a scheme was drawn up for expenditure on town improvements. North West Frontier Province.

In the town of Rangoon there is a municipal committee of 25 members, for the most part elected by the various national communities, with a salaried president. The ordinary revenue continued to increase, and amounted to £155,500, against £146,500, the corrected figure for 1902–03. Of the above total, direct taxation accounted for £96,200, falling at the rate of Rs. 6½ per head of the population. A loan for £100,000 was raised in the open market at 4½ per cent., on account of the new Hlawga water supply scheme. The gross expenditure was £367,700, apart from repayment of loans and advances; but excluding the large expenditure on loan works, the ordinary expenditure of the year was £142,500, as compared with £166,900 in the preceding year. Of this total, £23,500 was spent on conservancy, £19,700 on maintenance of drainage and water supply, £23,300 on roads and buildings, and £6,700 on public instruction. The debt of the municipality at the end of the year was £628,200, of which £106,700 is on account of the reclamation works; the net addition to the debt during the year was £69,200. The funds at the credit of the Town Lands Reclamation Fund at the beginning of the year amounted to £64,900, of which £25,400 was spent during the year. BURMA. Rangoon.

The number of other municipalities in Burma at the end of 1903–04 was 40, of which eight were administered under the Upper Burma Municipal Interior of Burma.

MUNICIPALITIES. Regulation of 1887. Elected members were serving on nine of the committees. The income of the municipalities, excluding debt heads, was £169,100, of which £72,500 came from taxation and ferry tolls, and £71,000 from markets and slaughter-houses. There are no octroi duties in Burma. Loan receipts amounted to £77,100, most of which was raised in the open market by Mandalay and Moulmein. The expenditure, excluding repayment of loans and advances, amounted to £222,100, the closing balances rising to an aggregate of £66,600. The expansion of expenditure is mainly due to the construction of a new bazaar at Mandalay, in addition to expenditure on waterworks at Moulmein and Prome, the cost of which is being met by loans. The amount spent on upkeep of water-supply and drainage works, conservancy and hospitals, was £65,200; and capital outlay on water-supply accounts for £22,200. The total outstanding indebtedness of the municipalities at the end of the year was raised to £131,000. The municipal incomes are for the most part small, only eight, including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of municipal population was Re. $1\frac{5}{8}$, the highest rate being Rs. 4 at Moulmein.

Central Provinces and Berar. In the Central Provinces 46 towns had municipal committees in 1903–04, and 12 in Berar, but in the former the question of reducing some of them to the status of notified areas was under consideration. The municipal income of the two provinces, excluding loans and advances, amounted to £132,000, compared with £118,600 in the previous year. Of this total £64,400 was raised by octroi duties, which were levied in 25 towns in the Central Provinces. The incidence of taxation per head of the municipal population was $25\frac{1}{2}$ annas, that of income from all sources being Rs. $2\frac{1}{2}$. The incidence is lower in Berar than in the Central Provinces, and the municipalities there, although small, have in many cases very large balances. The expenditure was £124,500, excluding advances and repayment of loans, compared with £117,700 in the preceding year; this sum included £34,300 for upkeep of water supply and drainage, and for conservancy, and £13,000 for education. After taking into account a few small loans from Government, the balance at the credit of the municipalities at the end of the year was £46,400, compared with £35,400 at the beginning, An encouraging report is given of the working of the municipal committees in face of the plague epidemic which prevailed.

Assam. The number of areas under municipal law in Assam, including two stations and three unions, remained at 14, but only three of them have a population of more than 10,000. The income, excluding deposits and advances, amounted to £17,000, but a large part of the receipts consists of contributions from Government, and only £8,200 was raised by rates and taxes, the incidence of taxation being $20\frac{1}{6}$ annas per head of the municipal population. The expenditure was £17,300, of which £7,900 was spent on water supply, drainage and conservancy, including a small amount of capital expenditure. The government granted a small loan to Sylhet. The closing balances rose to £3,900.

MADRAS. Madras City. On the municipality of Madras there are 33 commissioners, 24 being elected by the ratepayers, and of this number no less than 14 elective seats became vacant during the year. Three elections were contested, at which 19 per cent. of the registered electors came to the poll. The income of the year, excluding £33,300 borrowed in the open market and other extraordinary items, amounted to £105,900, of which £73,700 came from taxation and £25,100 from municipal property and powers apart from taxation, these two items showing a steady increase as compared with 1902–03. Taxation fell on the population at the rate of Rs. $2\frac{1}{6}$ per head; the principal tax is one of 10 per cent. on buildings and lands, and there is also a water tax at 4 per cent. and a lighting tax at $1\frac{1}{4}$ per cent., besides a tax on professions and trades, and taxes and tolls on animals and vehicles; there are no octroi duties. The above-mentioned loan was a 4 per cent. loan for drainage works. The expenditure came to £109,200, of which £16,600 was spent on maintenance of the existing water supply and drainage works, £11,400 on new works, and £19,100 on conservancy. The outstanding debt of the municipality amounted on the 31st March 1904 to £402,700, against which must be set the sinking funds, amounting to £116,000. The Madras Government, in reviewing the working of the year, say that the administration of the

municipality was, on the whole, fairly satisfactory, but that the collection of taxes, the repair of roads, and the extension of sanitary works require much greater attention. MUNICIPALITIES.

The number of municipalities in the interior of Madras was 60, of which 56 contained elected members. Two towns, to which the privilege of election had been extended, did not exercise it. The right of electing the chairman was withdrawn from the Mannargudi municipality, owing to the extreme inefficiency of the administration; 36 towns enjoyed this privilege. The total income of the municipalities, excluding debt heads, was £230,300, of which £132,200 was drawn from taxation and tolls. There was a good increase in the receipts from taxes, which included the tax on buildings and lands and the water and drainage tax and the tax on arts and professions. The average incidence of taxes and tolls continued to rise, and was rather over one rupee per head of the municipal population; there are no octroi duties in these towns. The expenditure was £226,700, of which £67,000, or £30,000 less than in the previous year, was spent on public works. The outstanding debts at the end of the year amounted to £130,500, against which there were sinking funds of £7,000. Interior of Madras.

The municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The revenue realised was £565,500, or £20,500 more than in 1902–03, owing for the most part to an increase in the receipts from property taxes. The operations of the City Improvement Trust had shown incidentally that property in the city was much under-assessed, and a revision of assessments was undertaken, with the result that the income of the municipality from this source has been permanently increased by more than £27,000. There were no changes requiring notice in the rates of taxation. The general tax, at the rate of 10 per cent., yields about one third of the income, octroi duties one seventh, and water revenue one sixth. The expenditure was £562,100, including a contribution of £23,300 to the Improvement Trust, £194,700 for debt services, £34,900 for maintenance of drainage and waterworks, and £102,800 for conservancy. The balance at the end of the year was £120,300, compared with £6,700 required by law, and although certain liabilities have to be set against this, it is claimed by the Standing Committee that the financial position of the municipality has substantially improved. BOMBAY. Bombay City.

A loan for £25,000 was raised from the public for the construction of sewerage works; the outstanding debt at the end of the year was £3,161,400, the sinking fund amounting to £313,100. The expenditure from loan funds during the year was £28,100 on sewerage works, and £15,000 on other works, besides a plague expenditure of £16,300, compared with £15,400 in the preceding year. The expenditure since the plague began was £399,800 at the end of March 1904, of which £96,700 was received from the Government, and the remainder met partly by special plague loans and partly out of other loan funds.

Good progress was made with the work of the Bombay City Improvement Trust during the year; 248 properties were acquired at a cost of £259,800, the total thus spent up to the end of the year being £602,100. The difficult question of acquisition has now arrived at a stage in which the questions at issue between the owners and the Board are much simplified, and amicable arrangements are frequently practicable. The Board had in hand 26 schemes, of which 17 had received the sanction of Government and nine were under consideration; and they were in addition dealing with 16 slum areas. The provision of housing accommodation for the dispossessed population was proceeding steadily, but care was taken to interfere as little as need be with private enterprise in this direction. A loan for £400,000 at 4 per cent. was raised at an average rate of rather more than par. The year's revenue of the Trust amounted to £58,700, and the expenditure, exclusive of capital charges, to £46,600. The revenue consisted of the municipal contribution of £23,300 mentioned above, and other receipts from investments, rents, and other proceeds of property. The capital expenditure during the year amounted to £330,700, bringing the grand total to the end of 1903–04 up to £796,000.

MUNICIPALITIES. Interior of Bombay.

The municipalities in the interior of Bombay numbered 165. The income of the municipalities was £407,300, excluding loans and advances, but including refunds of octroi duties, &c. to the amount of £51,700. Of the above total, £179,700 was raised by octroi duties and £135,800 by other taxes, the general incidence of all the taxes per head of the municipal population standing at Re. $1\frac{2}{3}$, and varying from Rs. $5\frac{1}{2}$ in Karachi downwards. The receipts showed a general increase throughout the Presidency proper, and though there was an apparent falling off in Sind, this is attributable to various special causes and is not to be considered as a real reduction of revenue. The expenditure, also excluding loan heads, increased by £5,000, owing to larger outlay on drainage at Ahmedabad, and stood at £386,800. The indebtedness of the municipalities amounted at the end of the year to £288,400. Expenditure on sinking funds and the repayment of debt during the year amounted to £24,200, and the amounts of the loans received were insignificant. The closing balance at credit of the municipal funds was £119,000.

## DISTRICT BOARDS.

DISTRICT BOARDS. General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; in most provinces district committees had, for many years, given assistance or exercised control in the administration of local roads, local hospitals, and local schools, but before 1870 there was no organised attempt to introduce rural self-government. The present system is based on the principles laid down by the Government of Lord Ripon, in 1882. In all the more advanced provinces district boards are constituted under different enactments. The funds of the boards are supplied for the most part from the yield of specific imposts, known as provincial rates, made over to them in whole or in part by the local governments. They have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. But the part of the district funds which admits of an extension of the general usefulness of the boards is that accruing from provincial rates. In most provinces the district boards delegate much of their detailed work to sub-divisional or "local" boards, which are constituted under the law, and are responsible for sub-divisions or parts of a district. The local boards contain a proportion of elected members, varying from three-quarters to a half of the whole number, in all provinces excepting Assam, where the elective system has not been generally introduced, and Madras, where it is only applied to members of district boards. The latter are to a large extent chosen, either by election or appointment, from the ranks of the local board members. The following table shows the general constitution of the boards in each province, the figures in italics relating to the local boards:—

| | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex Officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Native. |
| Madras | 21 | 657 | 103 | 247 | 307 | 251 | 406 | 135 | 522 |
| | *80** | *1,173* | *79* | *1,094* | — | *349* | *824* | *103* | *1,070* |
| Bombay | 24 | 523 | 5 | 285 | 233 | 131 | 392 | 65 | 458 |
| | *207* | *3,046* | *37* | *1,643* | *1,366* | *634* | *2,412* | *127* | *2,919* |
| Bengal | 42 | 842 | 213 | 296 | 333 | 270 | 572 | 214 | 628 |
| | *104* | *1,249* | *46* | *845* | *358* | *175* | *1,074* | *110* | *1,139* |
| United Provinces. | 48 | 938 | 255 | 74 | 609 | 275 | 664 | 97 | 841 |
| Punjab | 27 | 1,077 | 207 | 495 | 375 | 237 | 840 | 71 | 1,006 |
| | *28* | *531* | *28* | *161* | *342* | *27* | *504* | *3* | *528* |
| Central Provinces and Berar. | 23 | 481 | 8 | 109 | 364 | 80 | 401 | 22 | 459 |
| | *76* | *1,273* | *26* | *308* | *939* | *129* | *1,144* | *5* | *1,268* |
| Assam | *19* | *364* | *60* | *171* | *133* | *71* | *293* | *132* | *232* |

* Besides 379 union panchayats, with 3,537 members.

DISTRICT BOARDS.

Bengal.

In Bengal there were 42 district boards as in the previous year, and 104 local boards, the latter having charge of village roads and various duties deputed to them in respect of pounds, ferries, primary education, and other matters; and there were also 58 union committees entrusted with minor duties. At present the union committees, which are formed with the object of stimulating local interest in sanitary improvements, and are under the supervision of the local boards, are of little help to the administration. In the Bill to amend the Local Self-Government Act, provision is made for putting them directly under the control of the district boards. The income of the district boards, apart from the head of deposits and advances, rose from £519,000 to £525,500, owing chiefly to larger contributions from the local Government. The figures include £298,600 from the road cess. The expenditure, also excluding deposits and advances, was £513,300, of which £121,300 was spent on education and £324,800 on civil works, chiefly roads. The closing balances, exclusive of deposits, amounted to £145,900, which was considerably in excess of their amount at the end of the preceding year. A comparison of the figures of 1888–89 with those of 1903–04 shows that during the last fifteen years the growth of local self-government, although quiet and unostentatious, has nevertheless been healthy and vigorous. The road system has been reorganised, medical expenditure increased, and large drainage schemes put on foot, in spite of an unexpectedly inelastic revenue, by the aid of liberal Government grants.

United Provinces.

There were, as in the previous year, 44 district boards and four district committees in the United Provinces. The income of the boards and committees during 1903–04 was £415,800, excluding deposits and advances; of this amount, £216,100 came from provincial rates, and £82,100 was contributed by the local Government. The ordinary receipts, apart from contributions, showed a decrease, owing to smaller receipts from provincial rates in Bundelkhand. The expenditure amounted to £417,600, of which £123,100 was spent on education with satisfactory results, £46,300 on the equipment and maintenance of hospitals and dispensaries, and £212,100 on civil works, chiefly roads and bridges. The new scheme of local finance was still under consideration, but it was hoped that it would be ready for introduction in 1906. When it is introduced, a larger measure of independence in the exercise of their financial powers will be secured to the boards, and ample opportunity will be afforded for the expenditure of the accumulated balances, which stood at £91,600 at the end of the year. This was less than in the previous year, but still far in advance of the prescribed minimum balance.

Punjab.

The number of district boards in the Punjab was 27, and that of the local boards 28, as at the end of the preceding year. Local boards have been found to be useless in many parts of the province, and have been abolished, though no such changes were made during the year; they only exist at present in seven districts. The district boards in nine districts are composed entirely of nominated or ex-officio members. The working of the district boards was generally satisfactory, and although in most districts the actual work is done by the official members, there are exceptions to this rule. Sub-committees have been established in most districts, with the object of interesting members in special departments of work. The year's income of the district boards, apart from loans and advances, came to £211,200, of which the chief items were £160,200 from local rates, agricultural conditions having been good, and £21,500 from civil works. The expenditure of the year was £205,900, of which the chief items were education, £44,500, medical and sanitary charges, £25,200; and roads and other public works, £60,300. The larger part of the plague charges has now been undertaken by the Government, provision being made that no district board shall be burdened beyond its capacity with this expenditure, but the total expenditure on this account was small in 1903–04. The closing balances of the district funds taken together amounted to £71,700, compared with £65,300 at the end of 1902–03.

Central Provinces.

In the Central Provinces and Berar, district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 23 and 76 respectively. The number of meetings

District Boards.

held by councils and boards was satisfactory, and it is generally admitted that the members of district councils are beginning to respond to the call made upon them. The income of the district funds amounted to £108,600, excluding debt heads, while the expenditure, also excluding repayment of loans, &c., was £104,200. The Berar district boards, six in number, have a much larger share, proportionately, than those of the Central Provinces in the above amounts, and the average incidence of "local" taxation per head of the population is three-quarters of an anna only in the Central Provinces, against $2\frac{2}{3}$ annas in Berar. The chief source of income, as in other provinces, is the provincial rates, but receipts from cattle pounds constitute a much higher proportion of the total in the Central Provinces than elsewhere, while in Berar there was up to the year under report a town fund or licence tax, which has now been abolished in non-municipal areas, the income tax being substituted for it. The expenditure included £35,800 on education and £27,300 on public works; the former item includes a special recurring grant made by the Government of India for expenditure on primary schools in the Central Provinces. The total balances amounted to £77,700, of which no less than £66,100, or more than a year's revenue, was held by the Berar boards.

Assam.

In Assam there were 19 local boards, constituted under a Regulation of 1879, modified by executive rules. A special feature of their constitution is the presence of a large proportion of Europeans among their members, representing the planting community. Reforms were under consideration, with the object of introducing more uniformity into the constitution of the boards, regularising the election of members representing the planting interest, and securing the better representation of rural and commercial interests. The income of the boards, apart from debt heads, was £77,600; the local rates, which are assessed generally at one sixteenth of the land revenue, realised £40,900. The boards spent £75,400; about 50 per cent. of the total expenditure was devoted to public works, and 27 per cent. to education. The closing balances amounted to £28,100.

Madras.

In Madras there were 21 district boards and 80 taluk boards, and the number of village unions was 379. The taluk or subdivisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents. The village union *panchayats* or councils have each not less than five members; they deal chiefly with local sanitation, though in some cases they have the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The income of the boards and unions, excluding debt heads and contributions from one district board to another, increased from £643,800 to £676,000. The chief item is the land cess, levied at rates varying from one to two annas per rupee of the land revenue assessment, which yielded £12,600 more than in the previous year. The above figure includes also grants from provincial revenues amounting to £59,600, chiefly for education and public works. The expenditure of the boards, also excluding the heads mentioned above, amounted to £667,400, or nearly 2 per cent. more than in 1902–03. The chief items of expenditure were £280,300 on public works, £74,500 on medical institutions and sanitation, and £87,500 on education. About one half of the expenditure is controlled by the taluk boards. The Mayaveram-Mutupet Railway, which belongs to the Tanjore District Board, brought in a net profit of 5·1 per cent. on the capital outlay. It was extended to Arantangi during the year.

Bombay.

In Bombay and Sind there were 24 district and 207 taluk (or subdivisional) boards, nearly all of which are partly elective. The income of the local boards, excluding debt heads, was £319,900, compared with £325,000 in the previous year. The cause of the decrease was the smaller amount contributed by the local government in comparison with 1902–03, when large grants for educational and medical purposes were made. The limit of aid to be given by the Government to local boards on account of primary education was, however, raised during the year from one third to one half of the board's expenditure. The receipts from rates, £195,200, were well above those of 1902–03, owing to the better season. The expenditure of the boards, also excluding debt heads, was £304,200, including

£106,900 on education, £149,300 on civil works, and £19,700 on medical objects. The actual balances at credit of the boards, which owing to the disorganisation by famine and plague were reduced at the end of the year 1900–01 to £75,700, stood at £142,100 at the end of 1903–04. The administration of the boards is said to have been, on the whole, satisfactory, though their working during the year was hampered by the continuance of the plague. DISTRICT BOARDS.

There are no local boards in Burma or Coorg. Their place is taken in Burma to some extent by the district funds under the control of Government officers. These had an income of £181,400 and an expenditure of £167,000 in the year under report. Those in Lower Burma, known as "District Cess Funds" are the largest, and account for £143,500 of the expenditure, of which £18,300 was on education and £61,600 on public works. Burma.

## PORT TRUSTS.

PORT TRUSTS.

The custody of the harbours and the administration of harbour and shore affairs in the more important ports are placed by various legislative acts in the hands of Port Commissioners. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties.

There was a healthy development of trade, spread over nearly all headings, at the port of Bombay in 1903–04, the only important exceptions being in the imports of petroleum and grain. The exports of grain, with those of raw cotton, cotton piece goods, seeds, and other staples were considerably higher than in the good year 1902–03. The net result to the Bombay Port Trust was a rise in their revenue, which amounted to £429,400, a record figure. The receipts for wharfage fees and dock dues were £207,200, and from other sources, such as port dues, warehouse fees and rents, &c., £222,200. The expenditure amounted to £379,800, including £174,300 for interest and sinking fund charges, £36,600 for the working and maintenance of the bundar properties, and £111,600 for that of the Prince's and Victoria Docks. These docks, on which rather more than 1½ millions had been spent up to the end of the year, yielded in 1903–04 a net return of £105,700. The number of square-rigged vessels entering the port rose to 2,384, of 2,833,000 tons register, of which 1,533, of 2,572,000 tons, paid dock dues. The debt of the Trust amounted at the end of the year to £3,833,000, including £106,700 raised at 4 per cent. during the year for expenditure on capital works. About two millions of this total is owed to Government, and the remainder consists of foreshore securities and debenture loans. The properties vested in the Board are valued at £4,004,000, and various depreciation, reserve, and sinking funds amounted in the aggregate to £432,000. Bombay.

The receipts of the Calcutta Port Trust amounted to £531,000, which is rather better than in 1902–03, and the highest on record; the expenditure was £511,700, including the Kidderpore Dock Account and payments for interest and sinking funds. The surplus of £19,300 brought up the accumulated balances to £148,700, out of which a sum of £121,200 has been set aside as a Revenue Reserve Fund. Having regard to this position, the Commissioners further reduced the charges on trade and shipping in 1903–04 by an amount of £15,200, which, added to previous concessions, makes a total reduction of about £27,000 in the annual charges since July 1902. The jetties yielded a surplus of £36,900, and the petroleum wharf £14,100. The receipts from the Kidderpore wet docks were £169,600, there having Calcutta.

PORT TRUSTS.

been an increase under practically all heads, owing to the much greater tonnage of exports handled; the working expenses were £159,800, showing a net profit, apart from interest charges. The total capital expenditure at the docks amounts to £2,438,300, and the net income is not yet nearly sufficient to pay for interest and sinking fund charges; but the marked improvement in the working results is satisfactory. A Commission was appointed during the year to report on a proposal for the establishment of a depôt for the export of coal at Luff Point; their finding was an adverse one in all respects. The chief improvements in progress were the construction of a second dry dock, and of a light draft caisson for the 60 feet river entrance, reclamation work, and provision of new warehouses. The sum expended during the year on capital works was £198,100, which was met partly by temporary advances from revenue funds and partly from the proceeds of a 4 per cent. debenture loan for £226,700 which was raised during the year. The number and tonnage of vessels berthed in the port in recent years are shown in the margin. In both respects the year's figures are above those of 1902–03, and the tonnage is the highest recorded. The outstanding debt of the port, including the dock loans, amounted at the end of the year to £3,338,000, of which £2,142,000 was due to the Government and the remainder to debenture holders. Against this are to be set £282,200 at credit of sinking funds, and value of properties £4,374,000, besides the valuable Strand Bank lands held from the Government.

| Year. | No. | Net Tonnage. |
|---|---|---|
| 1898–99 | 1,203 | 2,350,900 |
| 1899–1900 | 1,179 | 2,425,800 |
| 1900–01 | 1,412 | 2,939,900 |
| 1901–02 | 1,347 | 2,937,300 |
| 1902–03 | 1,309 | 2,884,600 |
| 1903–04 | 1,368 | 3,135,400 |

Rangoon.

The ordinary receipts of the port of Rangoon were £113,300 in the year 1903–04, and the expenditure £78,200. If the debt accounts be included, the total receipts were £118,800, and the gross expenditure was £104,600, the closing balance being increased to £64,600. There was an increase in the revenue derived from the Strand Bank properties, as compared with 1902–03, owing to larger importations. The total import trade of the port was higher than in 1902–03 or any previous year. The net tonnage of seagoing vessels entering the port was 2,003,000 tons, against 1,966,000 tons in 1902–03, and consisted almost entirely of steamers, the number of which was 1,189; 273 steamers of tonnage exceeding 4,000 tons entered the port, compared with 222 in the preceding year, and only 44 ten years ago. The scheme for the new port works was approved by the Local Government early in 1902, and sanction has been given to the detailed estimates for various portions which will cost £304,200. The whole scheme was estimated to cost about £617,000, to be raised by public loans. A loan for £67,000 at 4½ per cent. was floated at a premium, and the work was begun, though not very much was spent during the year. The financial position of the Port Fund is very good, and it is possible that the money required for interest and sinking funds for the amount to be raised for the improvements will be available from revenue without the imposition of additional taxation, which can, however, be levied if it is ultimately found to be necessary.

Madras.

The ordinary expenditure of the Madras Harbour Trust in the year 1902–03, the latest for which particulars are available, was £40,100, and its receipts were £48,500, excluding debt headings in either case. Taking into account payments from revenue to capital account, and the exceptionally large repayments of capital advances, as well as a decrease in the receipts owing to the operation of a reduced scale of tonnage rates, the total result was a decline in the balance from £77,000 to £60,900. The outstanding indebtedness to Government at the end of the year amounted to £277,000. The Government has reduced the rate of interest from 4½ per cent. to 4 per cent. There was a further small increase in the steam tonnage entering the port, to 1,241,000 tons. The proposal referred to in a previous Statement, to close the eastern entrance of the harbour and to open a new one in the north arm, was considered by a committee of experts appointed by the Secretary of State, and was approved by them. Steps have been taken to give effect to their proposals.

Karachi.

The opening up of new grain areas in the Punjab has made a new permanent source of traffic for Karachi, and the year 1903–04 showed results

considerably better even than those of the record year 1902–03, in the working of the Karachi Port Trust. The total income from revenue sources rose to £130,400, and showed an excess over the expenditure of £38,800. A sum of £28,600 was spent on capital works chiefly out of a loan of £30,000 floated during the year. The total liabilities of the Trust at the end of the year stood at £378,900. The net revenue from the piers and wharves was £49,000, which was 75 per cent higher than that of the preceding year. The gross tonnage of imports and exports passing over the piers and wharves was 1,273,300, against 802,600 in 1902–03, and the increase occurred not only in grain, but also in many other items of the trade. Inquiries were being prosecuted as to the steps most suitable for improving the port and offering facilities for the increase of trade. PORT TRUSTS

There are other minor ports at which smaller sums are raised yearly and expended on improvements, but these do not require notice.

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1903–04.

| | Bengal. | | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces and Berar. | Assam. | Madras. | | Bombay. | | Minor Provinces. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Presidency Corporation. | District Municipalities. | | | | | | | Presidency Corporation. | District Municipalities. | Presidency Corporation. | District Municipalities. | | |
| Number of Municipalities and Notified Areas - | 1 | 161 | 104 | 187 | 12 | 41 | 58 | 14 | 1 | 60 | 1 | 165 | 9 | 813 |
| Population with municipal limits - - - | 847,796 | 2,871,249 | 3,221,658 | 2,299,893 | 190,779 | 883,270 | 883,833 | 94,982 | 509,346 | 1,803,890 | 776,006 | 2,380,748 | 127,429 | 16,990,879 |
| Receipts : | | | | | | | | | | | | | | |
| Octroi - - - - - - - | £ — | £ — | £ 204,886 | £ 202,921 | £ 25,094 | £ — | £ 64,398 | £ — | £ — | £ — | £ 104,013 | £ 179,192 | £ 24,592 | £ 805,096 |
| Other Taxation - - - - - | 359,074 | 237,943 | 77,923 | 26,681 | 340 | 168,703 | 29,278 | 8,181 | 73,737 | 132,189 | 383,859 | 135,226 | 2,461 | 1,635,595 |
| Revenue sources other than Taxation - - | 74,404 | 61,719 | 108,492 | 99,289 | 8,536 | 177,373 | 38,329 | 8,847 | 33,659 | 98,120 | 77,636 | 91,070 | 9,459 | 886,983 |
| Extraordinary and Debt - - - - | 419,600 | 66,884 | 87,670 | 46,126 | 1 | 243,434 | 15,443 | 702 | 89,958 | 35,887 | 2,201,377 | 66,649 | 1,650 | 3,275,381 |
| Total (1903–04) - - £ | 853,078 | 366,546 | 478,971 | 375,017 | 34,021 | 589,510 | 147,448 | 17,730 | 197,354 | 266,196 | 2,766,885 | 472,137 | 38,162 | 6,603,055 |
| Corresponding Total (1902–03) - - £ | 547,829 | 330,032 | 393,111 | 376,363 | 33,978 | 654,976 | 120,048 | 15,787 | 169,111 | 265,769 | 2,432,417 | 445,425 | 33,985 | 5,818,831 |
| Expenditure : | | | | | | | | | | | | | | |
| Cost of Collection and Administration - - | 51,907 | 30,488 | 47,469 | 47,231 | 3,584 | 44,909 | 34,138 | 1,257 | 7,526 | 17,725 | 41,109 | 93,655 | 7,882 | 428,880 |
| Public Health and Convenience - - - | 416,675 | 217,877 | 237,050 | 186,038 | 17,158 | 429,191 | 62,878 | 14,082 | 68,890 | 156,900 | 275,819 | 189,582 | 12,415 | 2,284,555 |
| Public Safety - - - - - | 36,530 | 18,550 | 48,360 | 47,593 | 6,265 | 20,578 | 2,459 | 763 | 5,171 | 8,227 | 57,963 | 16,759 | 3,245 | 272,468 |
| Public Instruction - - - - | 1,890 | 9,649 | 16,205 | 41,015 | 3,809 | 22,176 | 13,239 | 596 | 1,426 | 26,015 | 7,524 | 52,580 | 1,984 | 198,108 |
| Interest and Miscellaneous - - - | 127,892 | 23,766 | 64,186 | 28,421 | 4,136 | 45,230 | 11,855 | 626 | 22,422 | 17,805 | 190,597 | 33,969 | 6,895 | 578,000 |
| Extraordinary and Debt - - - - | 139,930 | 58,730 | 41,049 | 16,254 | 2,084 | 91,953 | 11,809 | 75 | 56,123 | 27,481 | 2,189,815 | 65,644 | 2,894 | 2,703,841 |
| Total (1903–04) - - £ | 774,824 | 359,060 | 454,319 | 366,557 | 37,036 | 654,237 | 136,378 | 17,399 | 161,558 | 254,153 | 2,762,827 | 452,189 | 35,315 | 6,465,852 |
| Corresponding Total (1902–03) - - £ | 622,266 | 316,871 | 403,372 | 372,748 | 32,007 | 568,995 | 113,420 | 16,145 | 149,947 | 270,209 | 2,437,251 | 443,786 | 32,325 | 5,788,106 |

# CHAPTER IIA.

## VITAL STATISTICS AND SANITATION.

*(Detailed information on the subjects treated in this chapter is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper; and a brief review only is given in this place.)*

### VITAL STATISTICS.

VITAL STATISTICS. European troops.

The health of the European troops in India in 1903 was generally better than in the previous year, with the exception of the Madras command, which showed no change. The admission rate, the constantly sick rate, the death-rate, and the invaliding rate were all lower than in 1902. The following table gives details :—

| Year. | Average Strength. | Ratio per Mille of Strength. | | | |
|---|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths. | Invaliding. |
| 1891-1900 (ten years' average) - | 68,224 | 1,399 | 87 | 16·21 | 29 |
| 1902 - - - - | 60,540 | 1,078 | 66 | 14·68 | 37 |
| 1903 - - - - | 70,445 | 1,033 | 63 | 13·05 | 29 |

The chief causes of sickness were, as usual, venereal diseases and ague, which accounted for 23·9 and 23·5 per cent. respectively of the total number of admissions, that is to say, 247 and 243 respectively per thousand on the strength. The ratios for both these diseases, however, showed a decline as compared with the previous year, as also did those for pneumonia, dysentery, and remittent fever. The most notable increases were under the heads of simple continued and enteric fevers, influenza, cholera, and heat-stroke. It is to be noted that the ratio of admission for venereal diseases, which stood at 486 in the year 1897, continued the decline which has been nearly continuous since that year, falling from 281 in 1902 to the figure given above. Enteric fever and hepatic abscess were the chief causes of mortality, showing a death-rate of 4·19 and 1·29 per mille respectively, in each case a lower rate than in the preceding year. Enteric fever alone caused 32 per cent. of the total deaths, 1,384 admissions and 295 deaths being due to this disease. There was also a decline in the death-rate from nearly all the other diseases, the only notable exceptions being small-pox and cholera, which were both more prevalent also among the civil population. The loss by invaliding during 1903 amounted to 2,052 men, equal to 29 per mille of strength, against 2,255, or 37 per mille, in 1902. Venereal diseases were the cause of invaliding in more than 10 per cent. of the number of cases, and the next most important causes were malaria and debility. Half of the men invalided were under 25 years of age.

Native troops.

The health of the Native troops in 1903 was exceptionally good, for the admission and constantly sick rates were the lowest on record, and the same may be said of the death-rate, if the fatalities among men absent on furlough and sick leave be disregarded. The details are given below :—

| Year. | Average Strength. | Ratio per Mille of Strength. | | |
|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths (including deaths during absence). |
| 1891–1900 (ten years' average) - - | 127,666 | 852 | 32 | 16·62 |
| 1902 - - - - - - | 124,231 | 718 | 27 | 15·01 |
| 1903 - - - - - - | 124,660 | 662 | 25 | 13·97 |

VITAL STATISTICS. This favourable result was distributed over nearly all the chief causes of sickness and mortality, though cholera and enteric fever were more prevalent. As usual, the Native soldier suffered less than the European from small-pox, enteric fever, simple continued fever, diarrhœa, hepatic affections, and venereal diseases, and more from fevers, lung affections, and other diseases. Ague continued to rank first among the causes of admission, and accounted for 37 per cent. of the total. Pneumonia, as usual, was the chief cause of death, 30 per cent. of the deaths being due to this disease; while remittent fever and tubercule of the lungs accounted for nearly 9 and 7 per cent. respectively of the total mortality. The death-rate from cholera was high. The death-rate from enteric fever among the Native troops was only 0·2 per mille, as compared with 4·19 among the European troops. The deaths from plague during 1903 numbered 115. The number of men invalided for discharge was 1,395, the chief causes of this loss being, as usual, debility, intermittent fever, venereal disease, and rheumatism.

Jails. As regards the health of the jail population, the year 1903 was the culmination of a long period of consistent progress. The death-rates per mille for all classes of prisoners were 35·96, 33·95, 30·63 and 29·97 in the last four quinquennial periods of the last century. For the three years 1901 to 1903, they were 26·87, 24·85, and 21·38 per mille. The jail death-rate has, therefore, fallen notably below the standard for the free population of the same ages. The ratio of admissions to hospital in the year 1903 was 889 per mille; the chief causes were dysentery and diarrhœa; which between them accounted for 16 per cent. of the admissions, and ague, which was the cause of 43 per cent. The death-rate ranged from 17 per mille in the inland jails of Burma to 34·2 in the Andamans, the latter figure being much lower than in the preceding year. The chief causes of death were tubercle of the lungs, dysentery, and pneumonia. There were only 23 deaths from plague, and there was very little cholera or small-pox, though rather more than in 1902. With the exceptions of Burma and Madras all provinces show a reduced jail death-rate, but these two provinces are still among those returning the lowest rates.

General population. The provincial death-rates among the general population are given in the marginal table. It must be borne in mind, however, that the accuracy of the statistics is not yet very good, and that it varies in different parts of India. In every important province, except Bengal, where there was no change, and Assam, the death-rate was higher than in the preceding year, and in every province the urban were higher than the rural death-rates. The death-rate for the whole of India was 34·7 per mille, compared with 31·49 in 1902.

DEATH RATES.

| | 1902. | | | 1903. | | |
|---|---|---|---|---|---|---|
| | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal | 33·3 | 36·0 | 33·4 | 33·2 | 36·4 | 33·3 |
| Assam | 29·0 | 28·5 | 29·0 | 26·6 | 26·2 | 26·5 |
| United Provinces | 31·5 | 46·7 | 32·5 | 39·2 | 54·9 | 40·3 |
| Punjab | 43·5 | 49·4 | 44·1 | 48·6 | 52·9 | 49·0 |
| North-West Frontier Province. | 24·1 | 27·6 | 24·4 | 28·0 | 32·8 | 28·4 |
| Central Provinces | 25·2 | 32·4 | 25·8 | 32·4 | 64·6 | 35·5 |
| Berar | 32·0 | 36·6 | 32·8 | | | |
| Madras | 19·3 | 28·2 | 20·2 | 21·5 | 27·3 | 22·2 |
| Coorg | 26·1 | 36·9 | 27·1 | 29·8 | 48·8 | 31·4 |
| Bombay | 35·8 | 60·2 | 39·0 | 41·5 | 59·9 | 43·9 |
| Burma Lower | 20·0 | 29·9 | 21·2 | 23·0 | 32·3 | 24·1 |
| Burma Upper | 15·8 | 29·9 | 17·3 | 19·8 | 39·2 | 21·8 |
| Ajmere-Merwara | 29·9 | 40·8 | 32·9 | 24·2 | 41·0 | 28·8 |

Cholera was more prevalent in 1903 than in the previous year, owing, it is said, in a large degree to an outbreak of the disease at the great festival at Hardwar, from which it was widely disseminated. The number of deaths from this cause was 312,800, which gives a rate of 1·37 per mille. As compared with the year 1900, when the number of cholera deaths was 797,200, and the death-rate from this cause was 3·7 per mille, the number for 1903 is not high. The number of deaths from plague forms the subject of a separate section at the end of this chapter. Fevers are returned as having caused 4½ million deaths, or a ratio of 19·66 per mille, but this heading is used by the village registering agencies to cover almost every class of disease, and it is not only untrustworthy in itself, but it also vitiates the returns under other diseases. The mortality rate from dysentery and diarrhœa is given as 1·21 per mille.

Vital Statistics.

The mean birth-rate of the whole population under registration was 38·96 per mille, as compared with 39·38 in the preceding year. The provincial rates for the two years are given in the marginal table, which shows that the highest rate is that returned for the United Provinces, the lowest that for Coorg. In seven provinces the rate for 1903 was lower than that for the preceding year, but elsewhere there were increases, notably in Madras, where a larger number of births were recorded in 1903 than in any previous year. In eight provinces the birth-rate exceeded the death-rate, but in the Punjab, where the plague death-rate was 10·2 per mille, the death-rate was 6·1 per mille higher than the birth-rate; and in Bombay, where the plague death-rate was 15·2 per mille, there was a similar excess of 12·7 per mille in deaths over births. The other exception was the small province of Coorg.

BIRTH RATES.

| | 1902. | 1903. |
|---|---|---|
| Bengal | 40·1 | 39·0 |
| Assam | 34·2 | 35·6 |
| United Provinces | 45·8 | 46·1 |
| Punjab | 43·8 | 42·9 |
| North-West Frontier Province. | 33·6 | 31·6 |
| Central Provinces | 48·3 | 45.1 |
| Berar | 56·9 | |
| Madras | 28·2 | 31·2 |
| Coorg | 23·9 | 26·5 |
| Bombay | 34·2 | 31·2 |
| Burma (Lower) | 31·6 | 33·5 |
| Burma (Upper) | 38·0 | 37·5 |
| Ajmere-Merwara | 36·1 | 29·5 |

Vaccination.

The total number of vaccinations performed among the civil population during 1903–04 was 8,457,000, being an increase of 26,000 on the previous year's work. Of primary vaccinations 95 per cent. were successful, and 68 per cent. in the case of re-vaccinations, 33 per mille of the population having been successfully vaccinated. The number of infants successfully vaccinated was 3,746,000, and of children between one and six years of age 3,235,000.

## SANITATION.

Sanitation.

Some of the important sanitary works which have been completed or were in progress, or under consideration, during 1903–04 were as follows:—

Bengal. Calcutta.

In Calcutta the two chief works which the Corporation have in hand are the suburban drainage scheme and the continuous water supply scheme. Of the former, large portions had been completed, though they could not be utilised until other parts had been carried out. The completion of these, however, was vigorously pushed forward during the year. A drainage scheme for Balliaghatta was sanctioned and was to be taken in hand shortly; and the scheme for the surface drainage of the suburbs was under preparation. The work of converting the intermittent into a continuous filtered water system went on steadily, and the improved system had been extended over a portion of the city containing 210,900 inhabitants. A scheme has been sanctioned by the Corporation to increase the water supply by six million gallons by erecting new pumps at Pulta. The average consumption of filtered water in the area under constant supply was 24·23 gallons per head. A scheme has also been proposed for improving the supply of unfiltered water, by enlarging the mains, &c. The birth-rate of the town is returned at 15·5 per mille, the death-rate as 35·1; probably many births escape registration; the death-rate was raised by a recrudescence of plague.

During recent years the Corporation have vigorously pursued the policy of mending or ending insanitary "bustees," or collections of huts, while at the same time they have opened out unhealthy areas by constructing a number of public squares and making new roads or widening old ones. But overcrowding, with its concomitant circumstances, is a great evil in the city. The scheme for the improvement of the city by means of a Trust, resembling in some respects that working in Bombay, had been for some time under consideration, and has received sanction since the close of the year under report.

Interior of Bengal.

In the municipalities of Bengal, other than Calcutta, there was considerable activity during 1903–04 in regard to the provision of an improved water supply. In the South suburbs of Calcutta the filtered water supply scheme was completed, and the new scheme for increasing the water supply of Darjeeling was brought into operation. Schemes were also in various stages for water supply improvement in Burdwan, Asansol, Manicktolla, Barisal, Gaya, and other municipalities. The municipal commissioners have

SANITATION. been empowered to appoint committees for the management of the water supply, and rules for their guidance have been drawn up. Drainage schemes had been or were being prepared for many municipalities, and preliminary work was done in respect of the Burdwan scheme, which is estimated to cost £11,700, but has long been postponed for want of funds. The actual expenditure on the construction of new works during the year was small. Some attention was paid to village sanitation, and a few improvement schemes were in contemplation. Inquiry was being made as to the need for a law on the lines of the Central Provinces Village Sanitation Act, especially in villages near railway stations.

United Provinces. In the eight municipalities in the United Provinces in which there are waterworks, the expenditure under that heading was £30,600; and the same towns provided £32,800 for drainage works, out of a total of £47,800 for the province. Large drainage works were being carried out at Benares, Cawnpore, Agra, and other towns, and expensive schemes for Fyzabad, Mirzapur, and others were in contemplation. Plague was again prevalent in many of the municipalities, although the amount spent on plague measures was less than in the preceding year. On the whole, activity in sanitary matters was the most prominent feature of the municipal administration of the year, and the liberal subsidies given by the Government to the poorer towns enabled them to carry out much useful work. In regard to rural sanitation, some districts failed to utilize the full sums allotted for the purpose; but in most districts useful work was done, and in some cases the special grants for the improvement of wells, &c., were supplemented by contributions from the people themselves.

Punjab. In the Punjab plague was again prevalent in almost all the towns of the Delhi, Jullundur and Lahore divisions, and it increased largely in the Rawalpindi division. Slight progress was made with the intra-mural drainage scheme of Delhi city, and sanction for the necessary loan was given. A revision of a similar scheme in Umballa was being undertaken, to bring it within the financial capacity of the town. Progress was made with the Simla sewage extensions, about £5,000 being spent during the year. Drainage projects were also under consideration at five other towns, and those prepared for Rawalpindi and Gujarat were sanctioned. The execution of the Amritsar waterworks was much advanced, and improvements to the water supply were in hand in Lahore, Umballa, and Dharmsala, while schemes with this object were under consideration in two other towns. The capital expenditure on water supply and drainage works from municipal funds was £51,800 in 1903–04, against £48,600 in the preceding year. The system of village sanitary notebooks was in force in every district, and was found to be of considerable value. Several of the district boards were giving special attention to village sanitation, sub-committees having been formed in most districts with this object, with a view to interesting members in special departments of work.

BURMA. Rangoon. The sewage system of Rangoon is on the Shone system, and has worked well, but the increase of the population in the area served has made it necessary to institute an inquiry as to the possibility of making it more efficient. The work of reclaiming and draining East Rangoon was continued during the year 1903–04, and a committee was appointed to report on reclamation matters generally. The scheme is financed by the cession by the Government of the townland rents for a period of 50 years to the municipality. The two sources of the water supply were formerly the Royal and the Victoria Lakes. But the supply from the former had been so bad that in 1900 its use for domestic purposes was discontinued. Owing to the deficient rainfall the supply from the Victoria Lake was restricted during the summer months, and a short supply of water was given, the Royal Lake water being also used for a period of six months. The Hlawga water supply scheme, which is being carried out to augment the present supply from the Victoria Lake, was being pushed forward, and three tube wells were also sunk. Water was being stored in the new lake during 1904. The birth-rate of the town is said to have been higher than in any previous year, probably owing to improved registration; the death-rate, corrected to allow for increase of population since 1901, was 32·58 per mille.

SANITATION. Interior.

The expenditure on water supply in the municipalities of Burma other than Rangoon amounted to £28,800, most of which was spent on the Moulmein waterworks, now approaching completion. This scheme is an extensive one, and met with some opposition, but it is expected to have favourable results on the health of the town. At Prome also, a considerable amount was spent on improvement of the existing waterworks. The extensive Mandalay scheme will probably be abandoned, as separate provision has been made for the supply of the cantonments, and a less expensive system of wells will probably be adopted by the municipality. The Minbu plan has also been given up. Experiments with filters at Bassein and Akyab were in progress, and several tube wells were sunk. The expenditure under drainage was small, and was almost confined to minor sanitary improvements in Prome. In rural areas something, but not very much, was done in respect of village sanitation by expenditure from the small district cess funds.

Central Provinces and Berar.

Nearly every municipality in the Central Provinces and Berar had to bear a heavy burden of plague expenditure. Only in Nagpur and Amraoti was there any considerable expenditure on water supply, the pumping arrangements at these towns having been improved. There was a delay in completing the Seoni waterworks. Nagpur also was the only town where any material sum was spent on drainage works, and little has hitherto been done in this direction in any of the municipalities. As regards rural areas, it is reported that the interest of the local bodies is at present more with matters of education than of sanitation, but that the members are beginning to respond to the call that is made upon them in the latter direction also.

Assam.

The small municipalities of Assam cannot afford costly works for a water supply, which has generally to be provided by the construction of wells and tanks, as funds permit. Sylhet received a loan from the Government for waterworks, but only spent a small part of it during the year. An outbreak of plague occurred at Dibrugarh, and was stamped out by energetic measures. But in many towns insufficient attention is given to sanitation, notably in Sylhet, the sanitation of which leaves much to be desired. The sanitary improvements effected in rural tracts were chiefly in the direction of providing a purer water supply by the construction or repair of masonry wells and the excavation of tanks at some of the larger villages; but more requires to be done in this respect in the Assam Valley.

MADRAS. Madras City.

The new drainage works in Madras city do not appear to have made very much progress during 1903–04, and the expenditure was only £8,000. The estimate for the whole scheme was raised from £215,400 to £324,400, and a full report has been asked for as to this large increase. A considerable number of minor sanitary improvements were made, such as filling up of unused wells, &c. The quantity of water supplied from the Red Hills Lake was about 2½ per cent. greater than in the previous year; and the level of the lake was about an inch higher at the close of the year than at the beginning. When the drainage has been put in order there will be much to do for the improvement of the water supply, both in quantity and quality. The birth-rate of the town was 38·9 per mille, and the death-rate was 37·7 per mille.

Interior of Madras.

In the district municipalities in the Madras Presidency the expenditure on waterworks was less than in the previous year. The Vizagapatam and Cocanada waterworks were completed and opened during 1903. Waterworks for Coonoor and Guntur were in progress, and the works at Dindigul were being extended. A scheme for the water supply of Vellore was under the consideration of the Government at the end of the year. No drainage schemes of importance were executed during the year, but the scheme for the drainage of a part of Madura town had been prepared and submitted for the approval of Government, and investigations were in progress in respect of proposals for drainage in Ootacamund and other towns. The outlay on sanitation by local boards in Madras rose to £36,700, the greater part of the increase occurring under the head of water supply improvement.

BOMBAY. Bombay City.

The scheme of drainage proposed by Mr. Santo Crimp for the city of Bombay was being followed up in 1903–04. The Ferguson Road and Chinchpokli sectional sewerage works, and the Parel sectional sewerage works, were completed during the year. The drainage works in connection with the scheme for subsoil and surface drainage were commenced, the expenditure on these during the year being £16,900. Contracts were given

SANITATION. for pipes, &c., required for part of the Malabar Hill sectional sewerage works, and other works of a minor character were in progress, besides the addition of 711 house connections, construction of urinals, &c. There is room for many sanitary improvements, but new schemes in all branches of sanitary administration are being constantly carried out. The lakes and reservoirs which supply the city with water were maintained in good condition. The rainfall was plentiful, and the lakes were fully replenished. The supply delivered to consumers was at the rate of over 40 million gallons a day. The birth-rate of the year 1903 is given as 21·1 per mille; the death-rate was 65·09, which is lower than that of any year since 1898, with the sole exception of the year 1902. The number of deaths from plague during 1903 is given as 20,800, which equals 26·78 per mille, a much higher rate than in 1902; and the year was, therefore, in other respects, more healthy than 1902. The rates are calculated on the population shown in the census of 1901.

Interior of Bombay. In the other municipalities of the Presidency the large expenditure on plague precautions continued to check the prosecution of sanitary works. Public works of the usual character are required in some form or other in almost every municipality. In one or two large towns, Poona for instance, where a constant water supply has been provided, drainage schemes are urgently required. Many need an improved water supply. During the year 1903, the total expenditure of the district municipalities on sanitation, including conservancy, drainage, and waterworks, rose from £106,000 to about £117,000, the item which accounts for the increase being the capital expenditure on new drainage works at Ahmedabad, for which a loan of £20,000 was raised in the open market. The extension of the Village Sanitation Act has been interfered with by the famine and plague, which have claimed the attention of district officers in recent years. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the Collector of the district or by the Local Government, to supervise sanitary matters.

## HOSPITALS, DISPENSARIES, AND LEPER ASYLUMS.

HOSPITALS AND DISPENSARIES. There are in India, besides the large hospitals in Presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces for which no statistics are available; and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. But it is doubtful whether much benefit results from this experiment.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with 752 beds and a daily average of 414 in-patients in 1903, the Sir J. Jijibhoy hospital in Bombay city with 339 beds, the Government General hospital at Madras with 473 beds, the Mayo hospital at Lahore with 225 beds, the Rangoon General hospital with 483 beds, and others. The expenses are met to a large extent by the State, especially in the Presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £43,000 towards a total expenditure of £64,000; in Bombay city, £23,200 out of £34,100; in Madras city, £29,000 out of £36,100. Elsewhere, however, the chief contributions are from local funds; of the £73,100 received by the Madras dispensaries in the interior, £60,300 came from local or municipal funds; in Burma, £26,400 out of £57,000 came from such funds; and so on. Private subscriptions do not form a large proportion of the receipts; in Bengal they amounted to £34,600, chiefly from native donors, including about £1,050 subscribed in Calcutta, and in the United Provinces to £8,600; elsewhere the amounts were smaller.

The year under notice shows a continued increase in the number of patients in attendance at the hospitals and dispensaries in most provinces, though in Bombay, the Central Provinces and Berar, and the United Provinces, the improved health conditions of the year led to a decline.

There is, however, an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries. HOSPITALS, &C.

There are many leper asylums scattered throughout India, of which may be mentioned the Madras Government Leper Asylum (616 treated in 1903), the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum, the last three having accommodation between them for about 1,000 lepers. There are also a large number of asylums or homes, under some sort of Government supervision in many cases, including nearly 50 asylums of the Mission to Lepers, at which 3,792 persons are returned as having been treated. The census of 1901 showed a decline in the number of lepers to 97,340, compared with 126,244 in 1891, and the proportion works out to 48 male and 17 female lepers in every 100,000 of the population. Berar had the largest proportion of lepers (2 per mille), followed at some distance by Assam, Bengal, the Central Provinces, Burma, Madras, and Bombay, in that order. LEPER ASYLUMS.

## LUNATIC ASYLUMS.

The treatment of lunatics at asylums prevails only on a small scale in India. In comparison with European countries insanity appears to be infrequent in India, and the census of 1901 showed a decrease of nearly 11 per cent. in the number of insane since 1891. The decrease occurred in nearly every province, and was explained in many of them by the probability that the insane would suffer more than the general population in years of scarcity of food. LUNATIC ASYLUMS.

In Bombay there are seven lunatic asylums, at which 782 lunatics were under treatment at the end of 1903; in Bengal, there are six asylums, with 1,045 patients, more than half of them being criminal lunatics; in the United Provinces, four asylums, with 1,150 patients at the end of 1903; three asylums, with 587 patients, in the Madras Presidency; two, with 306 patients, in the Central Provinces; one each in Burma and Assam, with 442 and 157 lunatics respectively; while the Punjab Lunatic Asylum at Lahore contained 539 patients.

## PLAGUE.

The earlier history of the measures taken to combat the plague was summarised in the statement for 1901–02, pages 115 to 117. It was shown there that the Government of India had recognised that measures of compulsion should be eschewed, and that the efforts of Government officials should be directed to convincing the people of the utility of particular methods, and inducing them to carry them out of their own free will. These principles have been maintained and restated in the Resolutions recently issued by some of the Local Governments on the subject, as will appear from the following summary of the Resolution issued in November 1904 by the Government of Bengal. PLAGUE.

The essential basis, it is there stated, of any measures adopted by Government in dealing with an epidemic must be the avoidance of the least appearance of interfering with the rooted prejudices of the people. The function of Government should be to inspire and encourage them to help themselves, placing within their reach material means to that end.

The system of reimbursing to municipalities and district boards the actual plague expenditure incurred is modified, and grants are to be made beforehand to Commissioners of Divisions for distribution according to the needs of infected districts, the authorities thus gaining some regulating power over the expenditure and the lines on which preventive and remedial action are to proceed. The active measures which Government officers can promote are considered under five heads:—

(1) *Preventive Action.*—This includes general sanitation, the destruction of rats and mice, and inoculation. The latter is to be widely encouraged, but not pressed upon the people where it is unpopular, and is always to be performed by a duly qualified medical officer selected for the purpose.

(2) *Enlisting and Organising Unofficial Help.*—When an outbreak of plague is anticipated in a municipal area, Ward Committees are to be appointed, in order to call attention to sanitary defects, to

PLAGUE.

arrange for the reporting of plague cases, to enlist voluntary agency for the protection of property in evacuated houses, to advise and assist in the distribution of charitable funds, and generally to help and give confidence to the people. In smaller towns and villages the co-operation of the leading inhabitants is to be enlisted for similar purposes.

(3) *Preliminary Arrangements in Anticipation of an Outbreak of Plague.*—These include preparation of sites and provision of materials for huts for persons evacuating their houses, selection of a separate site for a plague hospital, and supply of disinfecting materials.

(4) *Measures to be Adopted on the Outbreak of Plague.*—These are disinfection, destruction of infected material, evacuation of dwellings, and removal to plague hospitals. As regards disinfectants, orders are given that only those should be used which will secure the cordial co-operation of the people. Infected materials are to be dealt with according to circumstances, no compulsory measures, however, being allowed; and the people are to be encouraged, by the offer of compensation on the spot, to consent to the prompt destruction by fire of all probably infected clothing and bedding. When the epidemic has gained ground, the chief reliance must be placed on evacuation, the people being induced to dismantle the roofs of the empty dwellings. Free materials for huts are to be supplied to the poorer classes, every freedom consistent with ventilation and proper sanitary conditions being left to the people in the construction of their huts. Provision is to be made for the protection, by the police and by voluntary agency, of the property left in the evacuated dwellings. Cases of plague among vagrants, friendless strangers, or persons in lodging houses licensed under the Lodging House Act, are to be taken to plague hospitals. In no other cases must pressure be brought to bear for the removal of patients to hospitals, free medical attendance and medicines being given, if asked for, in their own homes.

(5) *The Organisation of Charity.*—This is to be done, so far as possible, by the Ward Committees and leading men of the town or village, aided by the District Officer.

**Plague in 1903.**

The mortality from plague during the year 1903 again showed a very large increase. The recorded deaths from the disease for the whole of India, including Native States so far as reported, amounted in 1899 and the succeeding years to the figures given in the margin. As compared with other causes of death in 1903, the mortality from plague was more than twice as great as that from cholera, two and a half times as great as that returned under dysentery and diarrhœa, and more than seven times as great as that from small-pox. The month of highest mortality, as in the two preceding years, was March, when 138,100 plague deaths were recorded, and the minimum was returned in July, when the number was only 11,900.

PLAGUE DEATHS.

| Year. | Number. |
|---|---|
| 1899 | 139,000 |
| 1900 | 92,800 |
| 1901 | 283,000 |
| 1902 | 583,900 |
| 1903 | 865,600 |

All the provinces of India were more or less affected by plague in 1903, except Assam, Burma, Coorg, Baluchistan, the North West Frontier Province, and Ajmere-Merwara, where no plague deaths, or a quite insignificant number, were recorded. In Bengal there was an increase from 33,000 deaths in 1902 to 65,700 deaths in 1903, of which 8,200 occurred in Calcutta. In the United Provinces plague was much more prevalent, the deaths rising to 80,700; but the plague death-rate at Cawnpore which was nearly 37 per mile in 1902 fell to 11·10 per mille. The Punjab also showed a great increase in plague, no less than 192,100 deaths being recorded as due to this cause. Twenty-one Punjab districts were infected by the end of the year. For this province also a Resolution on plague measures has been published, practically eliminating the element of compulsion, and leaving the choice of adopting or neglecting precautionary measures in a great measure to the people themselves, while providing assistance for those who are willing to accept it. The Central India States suffered heavily and return 26,200 plague deaths. The epidemics of plague which had begun in the Central Provinces and in Berar in the year 1902 extended rapidly and spread widely during the year under report. The deaths ascribed to this cause in the

two provinces were 35,300 and 16,200 respectively, and the actual figures may have been larger. In Madras there was a small increase in the number of plague deaths. Hyderabad State returns 28,100 deaths, a much higher number; but Mysore State was more free than in 1902. The largest number of deaths from plague in any province was again recorded in Bombay, where the disease accounted for 281,300 deaths in the British districts and 82,500 in the Native states of the Presidency, against 184,700 and 38,600 respectively in the previous year. The mortality exceeded that returned under "fevers." All the districts in the Presidency except Thar and Parkar and the Upper Sind Frontier were affected, and the total is the highest recorded since the appearance of plague in 1896. In Bombay city, the number of recorded plague deaths rose to 20,750. PLAGUE.

There was a further large increase in plague mortality in the year 1904, the total for all India, according to the returns at present available, being 1,021,600 deaths. In the Bombay Presidency 276,100 deaths are returned, which is lower than in 1903, while the plague mortality in the city fell again nearly to the level of 1902. There were also fewer deaths in Calcutta than in 1903, but in the rest of Bengal the number (67,200) was slightly higher than that recorded in that year. The plague mortality in the Punjab was 351,700, which was, not for the first time, larger than that recorded in Bombay. The United Provinces with 161,700 deaths also showed a very great extension of the plague. The Central Provinces again take a high position in the list, with 40,900 deaths. 1904.

It has elsewhere been stated that in 1903 the deaths from plague in the native army were only 115, and in the jails only 23. These figures are in striking contrast with the enormous dissemination of plague among the general population. They point to the fact that the disease is controllable, and that if the sanitary conditions of the people at large could be brought up to the level of those enforced in the native army and the jails, and if the general population would adopt or submit to the precautions taken in cantonments and prisons, the present lamentable mortality from plague would be prevented. These precautions are concerned with the observation and segregation of persons coming from infected places, the destruction of rats, the prompt recognition of cases of illness, the isolation of suspected cases, the destruction or disinfection of all substances which may have been infected, and the evacuation of infected quarters. The efficacy of these measures—applied, it is true, under exceptionally favourable conditions—has been satisfactorily demonstrated in the case of the native army and the jails. In proportion as they find acceptance among the general population, and incline it to abandon ancient habits and prejudices, to conform to needful precautions and regulations, and to accept freely the proffered assistance of the State, plague in an epidemic form may be expected to lose its force. But it is necessary to recognise that the vastness, inertness and poverty of the population, the numerical weakness of the administrative and medical agencies at the disposal of the Government, and the insanitary conditions which exist in many parts of the country, present very serious obstacles to a rapid and complete realisation of this ideal. Plague in the Native Army and in the Jails.

Since the conclusion of the year under report, it has been decided to institute a comprehensive inquiry into the natural history of plague, and the scientific problems connected with its propagation and dissemination, in the hope that, if knowledge on these matters is secured, some progress may be made in the practical methods of combating the disease. The Royal Society and the Lister Institute have consented to undertake the direction and supervision of the investigation, and to administer the moneys allotted to this purpose by the Secretary of State for India. The two Societies have appointed a Joint Committee of four to discharge these duties, and a fifth member has been added to represent the Secretary of State and the Indian Government. Two investigators have been selected by the Committee to undertake the work of research in India, and two members of the Indian Medical Service, having special experience in the work, have been deputed by the Government of India to co-operate with them. The expedition will have the use of the Government laboratories in India, and whatever other assistance it may require in that country will be freely afforded.

# CHAPTER III.

## JUSTICE AND POLICE.

### Crime and Police.

Crime and Police.

The Commission which was appointed by the Government of India in July 1902 to inquire into the question of police administration (*see* the last issue of this Statement, page 26) presented their report on the 30th May 1903. On the 21st March 1905 the report was published by the Government of India, together with a resolution giving a comprehensive review of the whole subject, and setting forth the reforms which are to be introduced. This event is, however, outside the scope of the present Statement, and further details must be reserved for next year's issue.

Bengal.

The total sanctioned strength of the police force in Bengal, excluding the Calcutta force and the military police, was at the end of the year under review 24,742. The expenditure on the force during the year was £366,052, an increase of £10,959 on the previous year. Neither the superior staff nor the subordinates were considered to be sufficient for the police work to be done in the province.

The town police were almost everywhere inadequate in numbers, and were unfavourably reported on. As regards the rural police, the total number of *chaukidars* rose from 151,745 to 153,185. A steady improvement in the force was recorded, and the number of men of good castes is slowly increasing. A sum of £4,004 was paid in rewards to *chaukidars* as against £4,187 in 1902, but a much larger sum than in the previous year was paid in rewards for good service as distinguished from regular attendance. The *daffadari* system was in force in all divisions except Chota Nagpur, where the whole system was said to need thorough reform.

Of the total force employed at the end of the year, 92·3 per cent. of the officers and 28·9 per cent. of the men could read and write. The charges of torture and extortion brought against the police numbered respectively 19 and 68, as compared with 8 and 95 in 1902. Of these, 16 and 34 respectively were declared to be false or dismissed.

No change was made in the sanctioned strength of the military police (400), and their conduct and discipline were reported to be generally satisfactory.

The total number of cognisable* offences reported increased by 1,101 to 178,436. Of the total number made up of these together with pending cases, 141,808 were reported to the police, who investigated 70 per cent. of the whole number, as against 69 in 1902. Excluding cases in which inquiry was refused, the police inquired into 118,685 cases *suo motu*, and into 6,087 cases by order of a magistrate. The percentage of convictions was 36, as against 37·9 in 1902.

As regards serious crimes, the total number of cases of rioting and unlawful assembly tried fell from 2,452 to 2,068, the lowest on record since 1881. Convictions were obtained in 59 per cent. of the cases. On the other hand, there was an unsatisfactory rise under the heads Dakaity, Robbery, and Cattle Theft. Murders decreased from 398 to 387.

The newly developed Criminal Investigation Department worked most successfully during the year.

There was no change during the year in the sanctioned strength of the Calcutta Police Force, but there were at the end of the year a large number of vacancies in the ranks of the constables. The total number of cognisable cases was 38,853, as against 29,604 in 1902. After elimination of offences of a petty nature, the statements show an increase of 1,199 cognisable cases, almost the whole of which were under the heads of theft and burglary cases. The increase was considered to be partly due to improved reporting, but the

* Cognisable offences are those for which the police can arrest without a warrant.

number of cases actually brought to trial was smaller than in the preceding year.

United Provinces.

The total strength of the police force in the United Provinces was 26,928, and the total cost £410,090. The punishment roll was still rather heavy; the number of officers dismissed departmentally rose from 36 to 52, while the number of men dismissed fell from 178 to 157. Resignations increased from 687 to 726. On the whole, however, the year's record was satisfactory. Money rewards were more liberally given to the police and to village *chaukidars*, and the number of officers and men rewarded by promotion increased. Excellent work was done in the difficult task of breaking up and arresting dakait gangs. Operations against the river dakaits, who, under the guise of traders, annually invade Bengal by way of the Ganges, were specially successful. There was a considerable expenditure on buildings during the year, and much was done to improve the accommodation for the police.

The total volume of reported crime showed a decrease of 3,006 cases, or 1·8 per cent., on the figures of the previous year. Of the total record of crime for disposal, the police investigated 83,546 cases, or 49·2 per cent. Considering only crime reported to the police, 10·1 per cent. of the cases inquired into were not sent before the Courts for want of proof, 59·7 per cent. were sent before the magistrate, and in 30·2 per cent. no clue was obtained. In 46·2 per cent. of the total crime reported, inquiry was refused. The work was thus not quite so successful as in the previous year, when the percentages were 9·4, 61·2, 29·4 and 45·7 respectively.

As regards professional and organised crime, there were 410 cases of dakaity for disposal as against 343 in 1902, and 17 cases of professional poisoning as against 16, while the number of true cases of robbery reported fell from 783 to 757. There was a steady improvement in the detection and prevention of dakaities and robberies. The *Haburas*, a criminal tribe, were as usual active, and were responsible for a violent outbreak of road dakaity. As regards other serious crimes, there was an increase in the number of murders, and the result of police action in this class of crime was not so good as in the previous year. A satisfactory decrease of 353 occurred in the number of cases of cattle theft for disposal, and the number of cases of ordinary theft fell by 2,152.

The number of cases decided was 54,078, or 3,242 less than in 1902. The percentage convicted was 83·2, as against 83 in the previous year, but in cases investigated by the police the percentage of convictions fell from 55 to 53·8.

There was a slight decrease of 411 in the number of cases of non-cognisable crime. Property stolen was valued at £118,690, a considerable increase, and the percentage of recovery was the same as in the previous year, 23.

Punjab.

The total strength of the police force in the Punjab at the end of 1903 was 3,123 officers and 15,225 men; the strength was during the year increased by 46 officers and 264 men. The estimated cost of the force was £236,248. The number of officers, including sergeants, who could read and write was 2,551 and of constables 3,750. Departmental punishments inflicted on members of the force numbered 1,711 and judicial punishments 103, as compared with 1,578 and 109 respectively in 1902. Dismissals numbered 213, and resignations without pension or gratuity 738.

The favourable agricultural conditions which prevailed during the year, together with general cheapness of food-grains and steady prices, produced a substantial drop in the total number of cognisable offences reported (85,074). Offences under the Penal Code, however, increased by 488 to 63,408. Of the total number of cases, 48,390 were reported to the police and 36,684 to magistrates. A large number of the latter were unfounded, and the true cases related for the most part to minor offences; very little true cognisable crime was brought to notice except through the police. There was a satisfactory decrease in serious offences against the person throughout the province, and dakaities continued steadily to diminish in number, having dropped from 151 in 1900 to 58 in the year under review. The number of murders increased from 433 to 440. It is hoped that the passing of the

CRIME AND POLICE.

Poisons Act of 1904 will materially assist the police in dealing with one branch of this form of crime.

The percentage of convictions in cases reported to the police was 30, as in 1902; the percentage of persons convicted to persons reported was 54, as against 56. The estimated value of property stolen during the year was £71,938, of which 33 per cent. was recovered, as compared with 44 per cent. in 1902.

There was an increase in the number of punitive posts, continued and imposed during the year, and this form of punitive prevention in checking crime has been attended by striking success.

Burma.

The total strength of the Burma civil police was 12,971, or 544 below the sanctioned strength, and the cost of the force was £248,125. The strength of the military police was 15,062. The chief features of the year's report are not very satisfactory. The difficulty in obtaining recruits for the civil police continued, and was accompanied by an increase in the numbers of deaths, resignations, desertions, and dismissals. The number of literate officers and men decreased by 6 and 124 respectively, the percentages at the end of the year being 98 and 85. The number of rewards showed a slight increase, and on the whole the conduct of the force was good.

The total number of true cognisable cases (40,096) was 2,178 higher than in 1902, though the latter year showed figures considerably in excess of those of 1901. There was a marked increase in violent crime; murders increased by 37 per cent., and cattle-theft, a very serious crime in an agricultural province, rose from 2,145 cases to 2,523. Hurt by dangerous weapons, an offence to which the Burman is prone, increased by 111 cases. Detection, on the whole, kept pace with the increase of crime. The percentage of convictions in true cognisable cases of all kinds investigated by the police was 67. Offences under the Gambling, Excise, and Opium Acts all showed an increase.

The relations between village headmen and the police were, with few exceptions, reported to be satisfactory, and assistance was generally rendered by village headmen and villagers in cases of violent crime. Rewards were liberally paid to them.

Good work was done during the year in the matter of the identification of criminals by the Central Bureau in Rangoon, but the figures dealing with the recognition of old offenders were not quite so creditable to the police as in 1902. The work of beat patrols was more satisfactory than in the previous year; the system is considered to be eminently suited to the conditions of Burma, and its revision and improvement was contemplated. The conduct of the military police was good, but the health of the force continued to be unsatisfactory.

Central Provinces and Berar.

The police report of Berar was for the first time amalgamated with that of the Central Provinces, the administration having been taken over on the 1st November 1903.

The strength of the police force showed a deficiency of 357 men. It was found increasingly difficult to obtain recruits, particularly in the Nagpur country and Berar. The death roll of the year was a heavy one, nearly double that of 1902, the increased mortality being the result of plague, which raged in several districts. The punishment returns were considerably lower than in the previous year, the decline being specially marked in departmental punishments on officers in the Central Provinces, which fell from 448 to 276. The total cost of the police was £133,521, as against £134,005 in 1902.

The year was generally a prosperous one, and the chief characteristic was the large decrease in reported crime. The number of cognisable offences in the Central Provinces was the lowest on record, being 16,632 (exclusive of nuisance cases) as compared with the previous minimum of 18,081 in 1898. In Berar also crime was abnormally low, the number of offences having fallen from 4,078 to 3,035. The decrease in crime was common to almost all heads of offences, but murders formed an exception in the Central Provinces, where the number rose to 131 from 115 in the previous year. Dakaities in the Central Provinces reached the abnormally low figure of 22, or about half the number in the previous year. In Berar there were 42 crimes of this nature, against 54 in 1902; and the fact that during the past five years the number of dakaities in Berar had been nearly double the number in the Central

Provinces seemed to call for more strenuous measures for the repression of this public danger. In robberies also the year's returns for Berar furnished a bad record, the number having increased from 69 to 104. CRIME AND POLICE.

The most important feature of the police action of the year was the attention that was paid to the doings of professional criminals coming from outside the provinces. From the disclosures which were thus made it was discovered that the Central Provinces and Berar were being largely exploited by criminals from up-country; and some smart captures were effected. The increased co-operation of the authorities of Native States which border on the Northern districts was noted as satisfactory.

The recovery of stolen property in the Central Provinces rose to the high percentage of 40; in Berar it remained stationary at 25.

The military police in Assam numbered at the close of the year 336 officers with 2,527 men, and the force was reported to have maintained its efficiency. The strength of the Civil force, including Union police, was 383 officers and 2,289 constables. There was again a complaint of lack of discipline in the rank and file of the Civil police, and resignations were numerous. Punishments showed little variation from the previous year. Assam.

The total number of cognisable cases for disposal was 16,771, as compared with 16,484 in 1902. Of this number, 10,112 were investigated by the police and 6,784 were decided, the percentage of convictions being 69·4. Cases reported to the police numbered 10,081, of which 93·4 per cent. were investigated, convictions being obtained in 80 per cent. of the cases brought to trial. Robberies, dakaities, and house-breakings showed a satisfactory decrease. One remarkable dakaity case took place, in which it was proved that a number of Afghans actually planned in their own country a descent upon a trader's house in the Cachar district, and succeeded in carrying away over £600 worth of property. Thanks to the personal exertions of the Inspector-General, 24 of the 27 dakaits were arrested and convicted.

Non-cognisable crime showed an increase from 16,039 to 16,718 cases.

The total number of *chaukidars* in the districts of Sylhet, Cachar and Goalpara, where alone a Rural Police force was maintained, was 6,807. In the two latter districts they were reported to have worked well throughout the year.

The total sanctioned strength of the police in the North-West Frontier Province was 3,115, as in 1902, and the estimated cost of the force £39,115. The province inevitably shows a worse record of crime than the other more settled provinces, and the returns for the year were, on the whole, distinctly satisfactory. There was a marked reduction in the number of serious crimes, especially in the Bannu District. The discipline and health of the force were good, but there was a regrettable increase in the number of resignations and considerable difficulty was experienced in recruiting. The percentages of literate officers and men were 83 and 17 respectively. North-West Frontier Province.

The number of cognisable cases reported was 9,512, as compared with 9,966 in 1902. The decrease was common to all classes of crime. Murders fell from 192 to 180, dakaities from 61 to 55, and robberies from 132 to 105. The percentage of convictions to cases reported was 28, as against 26 in the previous year. Property stolen was valued at £6,571, while the percentage of recoveries fell from 39 to 36. The number of persons ordered to furnish security for good behaviour was 677, as against 969 during the previous year. Only one new punitive post was established during the year.

The total strength of the Coorg police force was 224, and it cost £2,771. The total number of cognisable cases reported was 668, as against 604 in 1902, the increase being mainly due to breaches of special and local laws, public nuisances, and offences against the Excise Act. There were six cases of dakaity and only one of murder. The proportion of convictions obtained in cognisable cases investigated by the police continued to be high—76·9 per cent., as against 75·7 per cent. in the previous year. Coorg.

The total strength of the police force in Madras (excluding the punitive police) was 23,819, the increase of 469 during the year being due mainly to the temporary establishment sanctioned for plague duty and to an addition to the strength of the railway police. The total cost of the force was Madras.

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£312,871, as against £298,809 in 1902. The recruiting difficulty in certain districts was as acute as ever, and there was a slight increase in the proportion of illiterate constables—15·5 per cent., as against 14·2 per cent. in the previous year. There was an increase from 24·7 to 29·3 in the percentage of men punished for offences other than absence without leave; but the higher percentage is, no doubt, partly attributable to closer supervision over beat duty. Judicial convictions declined from 242 to 209. The numbers of officers and men dismissed were practically the same as in the preceding year. The sanctioned strength of the Madras City Police was 1,445. In 1902 an increase to this force of 292 men had been sanctioned, and great difficulty was experienced during the year under review in getting recruits. Village police and village magistrates showed little improvement.

The year was one of general agricultural prosperity, with a fall in the prices of food grains and a consequent decrease of crime. The number of cognisable cases under the Indian Penal Code, excluding nuisances, numbered 58,458, as against 60,277 in 1902, and the number of true cases was 41,900, as against 44,302. There was again a deterioration in the detective results shown by the police. Thirty-six per cent. of true cases reported were detected —the lowest percentage for the past seven years. The percentage in cases of murder was 35, but the poor success of the police in dealing with dakaities was very noticeable. The proportion of convictions to cases prosecuted by the police was 79 per cent.—fractionally lower than in 1902.

Several arrests of important and leading criminals were effected during the year, the most notable being the capture of the notorious dakait, Mallaboyana Kondadu of Kistna, for whose apprehension a reward of Rs. 1,000 (£66 13*s.* 4*d.*) had been offered. In North Arcot the police arrested three conspicuous organisers of crime, and in Tinnevelly some notorious gangs of dakaits were broken up. With the exception of a few not very important incidents, the public peace was well maintained.

Bombay.

The total strength of the police force in the Bombay Presidency, inclusive of Sind and railways, but excluding the special forces employed temporarily for famine duty, remained practically unchanged at 22,306. The total expenditure decreased from £311,696 to £291,693. There was again a slight improvement in the education of the force, the percentages of officers and men able to read and write being 71 and 48 respectively, as against 71 and 46 in 1902. The total number of punishments inflicted (3,300) exceeded that of the previous year by 37, but there was also a rise, from 616 to 789, in the number of money rewards granted.

With the continuance of improved seasonal conditions, a further decrease of crime took place, including a falling-off in cases of serious crime. Less property was stolen and a better percentage recovered. Plague was even more prevalent than in former years, and imposed heavy additional duties and responsibilities on the police. Successful operations against dakaits were carried out in Khandesh and the Southern Talukas of Satara. In Sind the force maintained its general efficiency, and the increase in crimes and falling-off in percentage which occurred in that province were considered to be due to ordinary fluctuations.

During the year 120,440 offences in all, cognisable and non-cognisable, were reported, as against 135,980 in 1902. The total number of cognisable cases reported to the police, or taken up by them, was 34,730. Including pending cases of the previous year, the complaints for disposal totalled 37,980, including 30,203 Indian Penal Code cases. Of these, all but 181 were investigated. The percentage of convictions in cases brought before the courts by the police was 78·65, as compared with 80·56 in 1902. The proportion of undetected cases to those for disposal was 18·66, showing a slight improvement on the figure for the previous year.

In Bombay City cognisable offences numbered 42,814, as compared with 31,783 in 1902. The increase was confined to offences under local Acts, and there was a marked decrease in the number of cases of serious crime. The percentage of convictions in police cognisable cases rose from 92·4 to 95·6. The aggregate value of property stolen rose from £18,850 to £19,291, and the percentage recovered from 59 to 65.

## Criminal Justice.

Criminal Justice.

Bengal.

The permanent staff employed on Sessions work in Bengal during the year consisted of 29 Sessions Judges and three Additional Sessions Judges. The magisterial staff of the province, including Calcutta, consisted of 441 Stipendiary and 1,701 Honorary Magistrates.

The total number of criminal offences reported was 303,459, an increase of 1,399 on the figures of 1902. The increase was almost entirely in offences under special and local laws, which rose by 4,017 and numbered 102,262; offences under the Indian Penal Code (201,197) having remained practically stationary. The number of cases declared to be false and dismissed constituted 19·8 per cent. of the whole number. Of the 244,722 true cases, 178,013 were brought to trial.

Presidency magistrates, including the municipal magistrates, dealt with 32,479 cases. Of the 31,848 persons brought to trial, 28,626 were convicted. Magistrates outside Calcutta had before them 146,110 cases, a slight increase on the figures of 1902, but considerably less than in 1900 and 1901. The pending file at the end of the year showed 4,314 cases, as against 4,998 at the end of 1902. Of the persons whose cases were disposed of, 58·2 per cent. were convicted. The total number of witnesses called in the magistrates' courts of the mufassal was 640,686, of whom 25·5 per cent. were discharged without examination and 1·7 per cent. were detained after the third day. The sentences passed by magistrates included 23,701 of rigorous imprisonment, 931 of simple imprisonment, and 1,783 of whipping, with or without other punishment.

Cases committed or referred to the Sessions Courts during the year numbered 1,807, or 29 more than in 1902. The number of cases disposed of was 1,774, and the pending file at the end of the year showed 261 cases. Of 4,405 persons under trial, 63·6 were convicted. There were 61 sentences of death, 392 of transportation, and 32 of whipping. The number of persons tried by jury was 1,060. In 922 of these cases the Sessions Judge approved of the verdict; 64 cases in which there was complete disagreement were referred to the High Court. Of these, 39 cases were decided, the verdict of the jury being accepted in 16 and rejected in 19. Of 2,298 cases tried with the aid of Assessors, the judge concurred with the opinion of both Assessors in 1,595 cases, and in 453 differed from both. The average duration of Sessions trials was 44·1 days. This is a marked and satisfactory improvement on the returns of previous years, the duration previously reported being 51 days for 1902, 53 for 1901, and 55 for 1900. Out of 28,012 witnesses, 12 per cent. were kept after the third day.

The High Court tried 65 cases, involving 78 persons, of whom 66 were convicted, and left eight cases undecided at the close of the year. The average duration of cases from commitment was 32·8 days.

Including 81 pending cases, there were before the High Court 1,073 appeals, of which 968 were decided. Out of 844 appeals from sentences of the Sessions Courts, the orders of the Lower Courts were upheld in 707 instances and reversed in 41. Thirteen appeals by the local Government against orders of acquittal were decided during the year, the orders being reversed in six cases. The Sessions Courts decided 6,219 appeals and the Magistrates' Courts 4,982, the percentages of wholly unsuccessful appellants being respectively 66·1 and 67·2. Of the 51 death sentences referred from the Sessions Courts, 29 were confirmed and 13 commuted to transportation or imprisonment, while in six cases the person sentenced was acquitted. The High Court decided 249 revision cases and the Sessions Court 7,438.

The total charges for the year in connection with the administration of criminal justice amounted to £205,988, and the receipts to £104,714.

North-West Provinces.

For legislative purposes the North-West Provinces and Oudh are united, but inasmuch as Oudh is not subject to the High Court of the North-West Provinces, the judicial statistics of the two are given separately.

The feature of the year's statistics in the North-West Provinces was the marked decrease of crime. From 128,230 in 1902 (itself a year of low crime statistics) the number of offences reported fell to 123,602. Not since 1872 have the statistics of reported and investigated crime reached so low

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a level. The number brought to trial fell from 91,121 to 85,538. Under the Indian Penal Code 58,259 cases were returned as true, as against 62,254 in 1902. The total number of persons under trial decreased from 161,643 to 153,471. Of these the cases of 146,924 were disposed of in the Courts of Magistrates and 3,621 in the Courts of Session. The percentage of convictions in the former was 50 and in the latter 66. The average number of days during which each case lasted was 10, as compared with 9 in 1902. The number of cases which were pending over six weeks, though large in some districts, showed an improvement on the previous year's returns. Out of 301,643 witnesses summoned in Magistrates' Courts, the number detained after the second day was 7,915, a figure which appears rather excessive in view of the light criminal work of the year. It was generally observed by District Officers that magistrates did not make sufficient use of section 250 of the Code of Criminal Procedure for dealing with frivolous and vexatious actions.

Out of a total of 16,000 appeals, 3,423 were rejected, and in 7,845 the previous orders were confirmed. Trials by jury numbered 116, and the number of cases in which the judge disagreed with the verdict and referred the case to the High Court was 10.

Oudh.

The total number of offences reported in Oudh was 41,919 (including 29,013 under the Indian Penal Code), as against 44,089 in 1902. The number of true cases was 29,775—considerably less than in the previous year. Corresponding with the decrease in the total number of offences, the total number of persons brought to trial fell from 57,067 to 55,308, while the percentage of convictions showed little variation from that of the previous year. The number of cases disposed of fell from 31,656 to 30,218, and the average duration from 9·12 to 9·07 in Magistrates' Courts and from 44·73 to 39·76 in the Sessions Courts.

As regards punishments, sentences of death and transportation fell from 58 and 188 to 47 and 139 respectively. The number of whippings (1,516) was nearly the same as in 1902, but the percentage of whippings to the total number of all punishments fell from 37 to 32.

The total number of appeals was 3,714, out of which 804 were rejected, while in 1,729 the previous orders were confirmed. The corresponding figures for 1902 were 4,107, 687, and 1,947.

Punjab.

One hundred and seventy-two thousand four hundred and seventy-four offences were reported in the Punjab during the year, and 120,371 were returned as true. The number of cases brought to trial in Courts subordinate to Sessions Courts was 99,420, the number of persons involved being 232,396. These figures show an increase of 361 cases and 3,815 persons brought to trial as compared with the corresponding figures for 1902. The percentage of convictions was 27, as in the preceding year.

Of the cases returned as true during the year, 87,061, or 72 per cent., were cases under the Indian Penal Code. Of these cases, those affecting life swung back from 821, the figure for 1902, to 870, or only 19 less than the figure for 1901. There was, however, a compensating fall of 7 in the number of murders, which had shown a steady decrease since 1900. Thefts, robberies, and dakaities all showed a slight rise.

District Magistrates disposed of 3,232 cases, as against 2,565 cases in 1902, and Honorary Magistrates also did good work. The number of disposals in the Sessions Courts was practically the same as in the two preceding years, namely, 381. The Chief Court in the exercise of its original jurisdiction, tried five cases involving six persons.

The Chief Court confirmed the sentence of death passed upon 93 persons, commuted it in the case of 26, and acquitted 16 persons sent up under section 374, Criminal Procedure Code. The number of persons sentenced to solitary confinement fell from 8,204 to 7,363, and the number of persons whipped from 2,288 to 2,080. Forfeiture of property was ordered in 24 cases, as against four in 1902, 24 in 1901 and 139 in 1900.

Of 62,723 persons convicted, 17,102, or 27 per cent., appealed—9,357 to the District Magistrate, 6,948 to the Sessions Judge, and 797 to the Chief Court. Of these appeals 26 per cent. were summarily dismissed, and 41 per cent. dismissed after notice; while in the case of the remaining 33 per cent. the sentences were reduced, altered or set aside, or the proceedings were quashed.

In the Chief Court the number of appeals instituted rose from 610 to 622, while disposals fell from 632 to 629 and the pending file from 141 to 134. The number of appeals against acquittals was 7, as in the two preceding years. Applications for revision fell from 1,660 to 1,648, disposals from 1,449 to 1,438, and the pending file from 211 to 210. CRIMINAL JUSTICE.

The total number of offences reported during the year in Burma was 78,987 as against 74,274 in 1902, an increase which was confined to Lower Burma. The percentage of true cases fell slightly in Lower Burma to 93·9, and in Upper Burma was the same as in 1902—namely, 87·6. True cases under the Indian Penal Code numbered 25,820 in Lower and 8,653 in Upper Burma. Burma.

Magistrates of all classes disposed of 73,861 cases during the year. The average duration of cases in Lower Burma was 10 days, as in the preceding year; in Upper Burma it rose from 8 to 9 days. The percentage of persons convicted or committed was 62·2 in Lower and 63·3 in Upper Burma, as against 62·3 and 66·5 respectively in 1902. Such high percentages of acquittals and discharges seemed to indicate that the preparation and prosecution of cases before the subordinate magistrates were capable of improvement.

The Sessions Courts in Lower Burma dealt with 925 persons, or 74 more than in 1902. Capital sentences referred to the Chief Court for confirmation numbered 95, of which 69 were confirmed and 11 reversed. The average duration of trials increased in the Sessions Courts from 51 to 53 days and fell in the Chief Court from 36 to 31 days. In Upper Burma, Sessions Judges disposed of 114 cases, as compared with 93 in 1902. The percentage of convictions dropped very considerably, from 78·4 to 61·1, and the duration of trials increased from 34 to 44 days. Of 28 death sentences referred to the High Court, 20 were confirmed and 5 reversed.

As regards punishments, the total number of cases in which solitary confinement was awarded rose from 1,234 to 1,287. The number of whippings increased to 3,216, while 93 and 347 persons were sentenced to death and transportation respectively.

In Lower Burma there was a slight decrease in the number of appeals preferred. The percentage of sentences confirmed was 70·24 and the average duration of appeals was 17 days. The number of appeals preferred during the year in Upper Burma rose from 1,390 to 1,575. Sentences were confirmed in 64·4 per cent. of the cases, and the average duration was 13 days.

The number of cases called for in revision by District Magistrates in Lower Burma (5,576) was again substantially greater than in the preceding year, and there was a considerable increase also in the revision cases called for by Sessions Judges. In Upper Burma less revision work was done than in 1902.

The total number of cases reported in the Central Provinces and the total number returned as true were, respectively, 23,786 and 20,993, as against 25,532 and 23,173 in 1902. This decline was very generally distributed throughout the provinces, and was attributed mainly to the agricultural prosperity of the year, though it seems also certain that the presence of plague in some districts was responsible for a great reduction in the number of cases of a petty nature. Central Provinces.

The strength of the magistracy fell from 375 to 373 during the year. The percentage of convictions and committals among the 34,078 persons whose cases were disposed of was 50·5. The average duration of police cases before the magistrates rose again from 10·4 in 1902 to 11 in the year under review, and there was said to be considerable room for improvement in the direction of more rapid despatch of criminal work. The number of witnesses examined in Magisterial Courts was 71,603, of whom 5·2 per cent. were detained after the third day.

The four Courts of Session disposed of 132 cases, as against 161 in 1902. The percentage of convictions rose from 66·8 to 72·1.

The percentage of appellate cases in which the sentence was confirmed fell from 83 to 68 in the Judicial Commissioner's Court and from 78 to 74 in Sessions Courts. In District Magistrates' Courts it rose from 59 to 68. Thirty-one sentences of death came before the Judicial Commissioner for

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confirmation; in 18 cases the sentence was confirmed, and two prisoners were acquitted.

The sentences of death, transportation, and rigorous imprisonment passed by the Courts of Session numbered respectively 33, 56, and 64, as against 23, 78, and 83 in 1902. In Magistrates' Courts solitary confinement was ordered in 313 and whipping in addition to imprisonment in 468 cases.

Assam.

The judicial staff employed on criminal work in Assam consisted of two Session Judges, eight District Magistrates, 49 Stipendiary Magistrates, and 21 Honorary Magistrates. The offences reported to the Criminal Courts during the year numbered 30,951, including 23,352 under the Penal Code. There were 19,138 true cases, as against 18,905 in 1902.

Including cases which were under inquiry at the close of the preceding year, 20,828 cases coming before the Courts were accepted as true during 1903. Of these, 14,594 were brought to trial. The figures, as compared with those of 1902, represent an increase of 74 under the former and 200 under the latter head.

In the Courts of Magistrates, 14,341 cases were finally disposed of during the year, the proportion of convictions being 48 per cent. Courts of Session disposed of 161 cases, the pending file being reduced from 47 to 46. Of the 272 persons tried, 161 were convicted and 95 were discharged.

The High Court disposed of 76 appeals during the year, leaving seven pending at its close. Convictions were upheld in 63 cases and reversed in six. In appeals decided by the Courts of Session, the percentage of confirmations was 73·9, and in the Courts of District Magistrates 58·5.

The charges of the Criminal Courts amounted to £17,032, and the receipts to £9,131, an increase of £1,864 and £43 respectively on the figures for 1902.

North-West Frontier Province.

The total number of offences reported during the year in the North-West Frontier Province was 18,219, as against 21,095 in 1902. Of these 73 per cent. were returned as true. The only district in the province which did not share the general decrease was Dera Ismail Khan, where an increase of 20 per cent. was recorded in the total number of cases, and of 33 per cent. in the number found to be true. Complaints dismissed *in limine* numbered 4,964, the highest percentage being, as usual, in Hazara, where 44 per cent. of the total offences reported were dismissed summarily. The number of cases brought to trial was 12,497, which represents 94 per cent. of the offences admitted to have occurred. Forty-eight per cent. of the persons tried were convicted. In cases brought to trial under the Indian Penal Code, which numbered 6,123, the percentage of persons convicted rose from 26 to 28. The number of murders (172) was the lowest recorded since the province came into existence.

The number of persons who appealed to District Magistrates was 627. The steady fall in the percentage of persons who elected to appeal is a satisfactory feature, and indicates that speculative appeals have been checked by the power now vested in magistrates to enhance sentences. Of 785 persons whose appeals were decided by the Courts of Session, 260 had their sentences reversed or altered.

Berar.

Although Berar is now under the administration of the Central Provinces, the statistics of judicial administration for the year 1903 were not amalgamated, and it will be convenient to deal with them separately. The number of offences reported in Berar during the year was 15,859, as compared with 16,934 in 1902, and the percentage of complaints summarily dismissed rose from 12·2 to 14·9. This was an improvement, but there was still room for a large increase in the number of complaints summarily dismissed. The total number of offences brought to trial (13,668) was less by 1,405 than in the previous year. The percentage of convictions among the persons whose cases were disposed of was 44·8, as against 45·5 per cent. in 1902. The average duration of proceedings fell from 10·3 days to 8·9 days, and the average period of detention of witnesses showed an improvement. The pending file showed a slightly increased number of cases at the end of the year.

The number of appeals filed was 525, as against 724 in 1902. In 67 per cent. of cases the appeals were dismissed. The Judicial Commissioner reversed 3·8 per cent., and the Sessions Judge 18·6 per cent.

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Coorg.

The number of offences reported in Coorg (1,531) declined by 111, and the trials held numbered 1,330, or 70 less than in the previous year. The variation was in each instance due to a decrease in the number of cases falling under the Workman's Breach of Contract Act, 1859, owing to the overstocking of the labour market and the decline of coffee planting. Excluding breach of contract cases, which were mostly compromised, the Criminal Courts dealt with 1,938 persons, of whom 34·2 per cent. were convicted. There were only eight convictions of heinous crime, and only three persons were sentenced to transportation.

Madras.

There was a considerable decrease in the total numbers of cases and appeals instituted during the year in Madras, excluding those in the Village Magistrates' Courts, the figures being 292,955 and 9,533 respectively, as against 305,444 and 10,437 in 1902. The number of cases instituted in the Village Magistrates' Courts, however, increased from 9,971 to 10,158. There was a decrease of 1,498 in the number of offences under the Indian Penal Code, and of 9,428 in the number of offences under special and local laws reported during the year. Under the Penal Code the decrease was chiefly under theft (1,332) and criminal trespass (842). Under special and local laws the decrease was chiefly in offences under the Towns Nuisance Act (7,128). In regard to grave crimes, the number of offences affecting life was the same as in the previous year, while the number of robberies and dakaities decreased by 248. The percentage of convictions in cases brought to trial was 23·84 in the case of offences under the Penal Code, and 86·44 in the case of offences under special and local laws, the average percentages for the preceding five years being 26·14 and 85·76 respectively. The number of European British subjects brought to trial was 136, of whom 86 were convicted.

Of 16,594 persons tried in the Village Magistrates' Courts, 5,036 were convicted. In the regular Magistrates' Courts in the mufassal, 221,067 cases were instituted, as against 238,780 in 1902. The number of cases left pending at the end of the year was less than that of the previous year by 158. The total number of persons under trial in these courts was 374,675, of whom 368,273 were dealt with, as against 387,894 in the preceding year, the percentage of convictions falling from 51·12 to 50. The number of sentences, alike of whipping, fine, and imprisonment, was less than in 1902, a natural consequence of the reduction in the number of cases disposed of. The number of appeals was 7,400; in 61·27 per cent. the convictions were confirmed.

The cases committed to Sessions Courts in the mufassal numbered 1,168, and 2,862 persons in all were tried, both figures being considerably lower than those for 1902. One thousand one hundred and seven persons were tried by jury, 1,291 with the aid of assessors, and 15 partly by jury and partly with assessors. The Sessions Judges of Kurnool and Nellore were not satisfied with the working of the jury system; in other districts it was said to have worked fairly satisfactorily. The percentage of convictions was 48·58. Appeals numbered 1,187, the sentence appealed against being confirmed in 69·11 per cent. of the cases.

The number of cases instituted before the Presidency Magistrates rose from 65,249 to 70,720. The percentage of convictions was 90·5. A sum of £329 levied as fines in cases of cruelty to animals was paid to the S.P.C.A.

The High Court received for trial 48 Sessions cases, in which 73 persons were concerned. The percentage of convictions was 65, as against 86 in 1902. Thirty other cases and 83 death-sentences were also referred by the Sessions Judges to the High Court, the sentence of death being confirmed in 49 cases. The number of appeals received during the year was 864; in 79 per cent. of the total number of cases decided, the proceedings of the lower courts were not interfered with.

Bombay.

The total number of offences reported during the year in Bombay (including Sind) was 162,843, as against 162,883 in 1902. The number of offences against property, however, fell from 21,254 to 18,159, a decrease which seems to be due to the return of a normal harvest after a period of famine and scarcity. Of the total number of cases, 148,445 were returned as true. Cases brought to trial numbered in all 138,208, involving 244,163 persons, the figures being considerably less than those for the preceding year. Of the persons under trial, nearly 45 per cent.

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were acquitted or discharged, and 41 per cent. were convicted. The total number of cases decided was 138,133, as against 147,299 in 1902. Of these 98 per cent. were disposed of by magistrates. Of the total number of persons convicted, 62 per cent. were tried summarily, as against 52 per cent. in 1902 and 36 per cent. in 1901. The average duration of cases fell from 28 days to 7·2 days. There were 58 sentences of death and 127 of transportation, as compared with 59 and 216 respectively in the preceding year. Whippings decreased in number from 2,257 to 2,025. The percentage of whippings to the total number of all punishments was 16·45, as against 18·22 in 1902. The number of Europeans brought to trial, mostly for minor offences, was 525, of whom 397 were convicted.

Out of a total of 5,330 appeals, 32 per cent. were rejected; in 33 per cent. the sentences were confirmed and in 17 per cent. reversed. Applications for revision numbered 2,520, the sentence being reduced in 145 cases, reversed in 266 cases, and enhanced in 31 cases.

Persons tried by jury and with the aid of assessors numbered 379 and 1,257 respectively. In the High Court the verdict of the jury was approved in all cases. In the Courts of Sessions the percentage of cases in which it was approved was 88, as against 94 in the preceding year. In cases tried with assessors, the judge agreed with all or some of the assessors in 80 per cent. and differed from all in 20 per cent.

JAILS.

## JAILS.

The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| —— | 1903. | 1902. | 1901. | 1900. | 1899. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January | 101,664 | 108,741 | 115,059 | 109,406 | 102,125 |
| Admissions during the year | 440,948 | 471,529 | 487,374 | 586,895 | 484,420 |
| Aggregate - - | 542,612 | 580,270 | 602,433 | 696,301 | 586,545 |
| Discharged during the year from all causes | 448,981 | 478,532 | 493,693 | 581,281 | 477,167 |
| Jail population on 31st December - | 93,865 | 101,738 | 108,740 | 115,020 | 109,378 |
| Convict population on 1st January - | 93,682 | 98,873 | 105,047 | 97,196 | 93,828 |
| Admissions during the year - - | 156,112 | 171,256 | 176,568 | 207,437 | 174,060 |
| Aggregate - - | 249,794 | 270,129 | 281,615 | 304,733 | 267,888 |
| Released during the year - - | 160,503 | 172,202 | 178,362 | 194.924 | 167,354 |
| Casualties, &c. - - - - | 4,082 | 4,167 | 4,381 | 4,796 | 3,326 |
| Convict population on 31st December | 85,209 | 93,760 | 98,872 | 105,013 | 97,204 |

The total number of prisoners (440,985), including those under trial, admitted to jail during the year was about 6½ per cent. less than in 1902. With the exception of the North-West Frontier Province, Burma, Assam, and Coorg, the decrease was common to all provinces, and was largest in Madras 12·8 per cent., the United Provinces 8·9, and Bombay 8·5 per cent. The release of nearly 16,000 prisoners on the 1st January 1903 in celebration of the Coronation contributed materially to the reduction. The total daily average population fell from 106,375 to 93,093 (a decrease of 12·5 per cent.), and has not been so low since 1891.

One hundred and fifty-six thousand one hundred and twelve convicts were admitted during the year, as against 171,256 in 1902, being a decrease of nearly 9 per cent. The proportionate reduction in the case of males was 8·5 per cent., and in the case of females 15·4 per cent. The falling off in the number of admissions to jail is generally attributed to the prosperous conditions of the year and the cheapness of food grains.

During the year 98 prisoners escaped, compared with 74 in 1902, but 61 were recaptured before the end of the year, leaving 37 still at large. Escapes

were most frequent from the jails of Assam, where they are attributed to the insecurity of the jail buildings and the laxity of the police guard.

One thousand and sixty juvenile offenders were admitted during the year, as against 1,514 in the previous year, and the number bears a somewhat smaller proportion to total admissions than that of the previous year.

Fifty-seven per cent. of the persons admitted to jail came from the classes engaged in agriculture and in the care of animals. Nineteen per cent. were persons employed in miscellaneous callings and 9 per cent. gained their living by personal service.

The number of persons imprisoned during the year who had been previously convicted fell from 23,431 to 20,901, the proportion to total admissions remaining much the same. It appears probable that the figures were affected by the general decrease in crime, but there are indications that the need for inflicting more deterrent punishment, particularly on hardened offenders, tends to be more widely recognised by the Courts.

Attention continues to be paid to the subject of the identification of habitual offenders, and the system of identification by means of finger-print impressions has in some provinces been attended with a considerable measure of success.

As in the preceding year, the great majority of prison offences committed related to work, under which 54·6 of the offences reported were returned. The ratio of punishments to the total daily average population rose by 31 per cent.; the increase occurred chiefly under minor punishments, and was common to all provinces except the North-West Frontier Province and Coorg. It was most marked in the Central Provinces and Burma, where the ratio rose by 109 and 52·7 per cent. respectively. The figures for the different provinces are given in the following table:—

| | 1903. | | | 1902. | | | 1901. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras - - | 8,899 | 19 | 15,256 | 10,702 | 15 | 14,819 | 10,813 | 18 | 13,924 |
| Bombay - - | 7,915 | 36 | 9,297 | 10,053 | 20 | 10,110 | 10,422 | 23 | 10,746 |
| Bengal - - | 17,476 | 40 | 31,828 | 19,636 | 29 | 34,458 | 19,181 | 49 | 40,267 |
| United Provinces | 21,345 | 11 | 38,763 | 26,038 | 20 | 42,963 | 27,527 | 19 | 42,788 |
| Punjab - - | 11,199 | 91 | 38,837 | 11,928 | 84 | 38,591 | 12,644 | 123 | 37,951 |
| Burma - - | 10,672 | 50 | 42,863 | 11,076 | 58 | 38,643 | 11,510 | 48 | 36,635 |
| Central Provinces | 3,789 | 26 | 9,538 | 3,870 | 20 | 5,476 | 4,465 | 12 | 5,795 |
| Assam - - | 1,296 | 34 | 1,929 | 1,362 | 19 | 1,699 | 1,463 | 21 | 1,503 |
| North-West Frontier Province. | 971 | 1 | 1,206 | 893 | 4 | 1,500 | 881 | 5 | 1,541 |
| Coorg - - | 64 | 2 | 60 | 62 | — | 69 | 97 | 1 | 266 |
| Hyderabad Assigned Districts. | — | — | — | 1,087 | 2 | 620 | 1,389 | 3 | 904 |
| | 83,626 | 310 | 189,577 | 96,707 | 271 | 188,948 | 100,392 | 317 | 192,320 |

The aggregate number of corporal punishments tends steadily to decline. The total fell from 1,315 in 1902 to 1,100 in 1903, and bore a smaller proportion to the total number of punishments. The decrease in this respect was marked in the Central Provinces, where the ratio fell from 3·45 in 1902 to 1·31 in 1903. The total number of cases in which penal diet (with and without solitary confinement) was prescribed decreased by 386.

The treatment of habitual criminals, and their separation from casual offenders, received careful attention, particularly in the Punjab and the United Provinces.

The number of convicts who came under the mark system decreased from 33,396 in 1902 to 29,896 in 1903. The decrease is partly due to the smaller prison population of the year, and also to the release of a large number of

JAILS. convicts in celebration of the Coronation. Opinions are divided as to the merits of the system. In some provinces it is said that convicts are fully alive to its benefits; in others it is urged that the rules involve a great amount of clerical labour, that the advantages are too remote to appeal to long-term prisoners, and that marks are granted as a matter of routine for merely passive good conduct.

The important matter of providing separate sleeping accommodation for prisoners continued to receive attention during the year under review.

The total cost of maintenance per head of average strength rose from £4 5*s.* 9*d.* to £4 6*s.* 5*d.*, the increase being generally due to the lower average population during the year. The cash earnings of prisoners showed a decrease of 1*s.* 4*d.* a head, as compared with the previous year, and in consequence of the increased gross cost of maintenance and the decrease in the earnings, the net cost per prisoner rose from £3 6*s.* 2*d.* in 1902 to £3 8*s.* 10*d.*—the charge varying from £5 0*s.* 4*d.* in Assam to £2 3*s.* 10*d.* in Coorg. The greatest rise took place in the Central Provinces, where each prisoner cost £3 17*s.* 9*d.*, as against £1 11*s.* 1*d.* in 1902, mainly owing to the fact that the cost of establishment had to be distributed among a smaller population than in the previous year. In more than one province the manufacturing results were adversely affected by the release of several of the most skilled artisans on the occasion of the Coronation.

The progressive fall in the death-rates exhibited by the returns for the last 24 years is remarkable and affords legitimate cause for congratulation, the more so when it is remembered that the conditions of life, economic and hygienic, to which the majority of the free population have, of recent years, been subjected, have been far from favourable, and that the main causes of sickness within the jails have remained unaltered, and have diminished only slightly and recently in the extent of their incidence. The death-rate, which was 26·87 per mille in 1901 and 24·85 in 1902, fell in the year under review to 21·38, which is the lowest on record. To this result all but three provinces contributed in different measure, the decrease of mortality being most marked in the Andamans, the Punjab, the United Provinces, and the Central Provinces. Excluding provinces for which no comparison is possible, the death-rate among prisoners was 19·53 per mille, as against 34·7 among the free population, although the proportion of sick prisoners was enhanced by the greater prevalence of illness outside the jails. The highest death-rates were recorded in the Andamans (34·21), Assam (31·75), and Bombay (26·41). While plague was widely diffused and frequently assumed an epidemic form, only 34 cases and 23 deaths were reported from the jails, notwithstanding the fact that 159 of the 245 prisons were situated in infected towns or districts. Cholera accounted for 97 cases, with 57 deaths, as compared with 36 and 24 respectively in 1902, and small-pox was also slightly more prevalent, but not more fatal. All other diseases which usually assume an epidemic form, showed a diminution. A notable feature of the returns was the marked decrease of cerebro-spinal fever, which had threatened to assume alarming dimensions.

**Penal Settlement at Port Blair.**

The number of convicts remaining in the settlement at the end of the year under review was 13,906, as against 12,724 at the end of the previous year, and there was an increase from 12,922 to 13,326 in the average daily strength. There were 113 releases under the twenty years' rule, and 1,908 convicts were received during the year. The number of jail offences, most of which were of a petty nature, rose slightly to 2,619, and punishments were more numerous in proportion. Sixty-six convicts escaped during the year, as against 57 in the previous year. Of these 45 were recaptured.

The receipts of the settlement during 1903–04 amounted to £53,821, as compared with £45,927 in 1902–03, and the expenditure rose from £125,138 to £136,639. The net cost of each convict increased from £6 2*s.* 2*d.* to £6 4*s.* 3*d.*

There were 19 English looms at work in the female jail at the end of the year, and 4,000 more suits of cotton clothing were turned out than in the previous year. The land under tea cultivation was 505 acres, and the tea manufactured amounted to 153,496 lbs., or 12,296 lbs. less than the outturn of the previous year. The decrease was attributed mainly to unfavourable weather at the commencement of the year, and to an inadequate supply of labour.

JAILS.

The general health of the settlement was on the whole better than in the previous year. The rainfall was 116 inches, as compared with 138 inches in 1902–03. Although there was an increase in the number of admissions for fever, mortality from that disease showed a satisfactory decline. Dysentery showed a falling-off in admissions and deaths, but there was not a marked decrease either in the admissions or in the death-rate from phthisis.

## CIVIL JUSTICE.

CIVIL JUSTICE. Bengal.

The permanent Civil Judicial Staff employed in Bengal during 1903 consisted of 14 High Court Judges; 29 District and Sessions Judges; 3 Additional District and Sessions Judges; a Chief Judge and 4 Judges of the Presidency Small Cause Court; 3 Provincial Small Cause Court Judges, who exercised also the powers of a Subordinate Judge; 53 Subordinate Judges, and 293 Munsifs. Additional temporary officers were also employed in various districts during the year.

The number of civil suits pending on the original side of the High Court at the end of 1902 was 1,718, including 67 pending suits received by transfer from other courts, and the number instituted during 1903 was 908. During the year 971 suits were disposed of, as against 726 in 1902, and the pending file fell to 1,674. There were 965 suits pending for over one year, showing an increase of 36 over the figures of the previous year. The number of insolvency cases pending at the end of the year decreased from 211 to 190.

In the civil courts in the mufassal, the total number of ordinary suits and small causes instituted was 668,354. This number is considerably the largest on record, being 25,547 in excess of the figures for 1902. The increase is mainly attributable to the natural development of population and prosperity, and occurred chiefly in suits under the Rent Law. The number of suits disposed of was 648,209, a figure which is also in excess of that for any previous year. A marked increase in the average duration of cases before District and Subordinate Judges was noted as unsatisfactory.

In the Presidency Small Cause Court, both institutions and disposals showed an increase on the previous year's figures. The number of pending cases had risen steadily from 1,205 in 1899 to 2,516 in 1903.

The arrears of appeals continued to be very heavy, although a slight reduction was effected by the High Court, owing to a considerable increase in the number of appeals disposed of (3,873), combined with a slight decrease in the number preferred (3,751). The number of appeals pending at the end of the year was 7,340, a number representing over two years' average appellate work. The appointment of an additional judge was sanctioned, however, early in 1904, and a further reduction of arrears may accordingly be expected. In the Subordinate Courts, 19,853 appeals were instituted and 20,426 disposed of. The number of appeals pending at the close of the year (13,085) was 35 more than at the end of 1902.

North-Western Provinces.

Institutions of civil cases in the North-Western Province to some extent recovered from the fall in 1902, and numbered 90,548. This is still behind the provincial average for the past six years, viz., 91,881. Plague appears only to have affected the institution of civil suits during temporary periods of panic in particular districts.

The pending file was reduced from 9,787 to 9,703, but the number of cases pending over three months at the end of the year increased from 2,385 to 2,494. Although there were nearly 2,000 more cases for disposal than in 1902, the number of cases decided after contest decreased by 715, and cases decreed *ex parte* and compromised were considerably more numerous than in the previous year.

There were 12,391 appeals before the Subordinate Courts during the year, as compared with 13,704 in 1902, but the year closed with a pending file higher than that with which it opened. Before the High Court there were 3,567 appeals for disposal, as against 3,628 in 1902. Of these 1,568 were disposed of. The pending file rose slightly by 66, but an increase of 120 in second appeals is more than counterbalanced by a reduction of 61 in the pending file of first appeals.

The number of applications for execution of decrees filed during the year was 88,446, representing an increase of about 2,000 over the figures of the

CIVIL JUSTICE.

preceding year. Disposals, however, more than kept pace with institutions, the pending file at the end of the year being reduced from 12,485 to 12,074. Realisation was complete in 19,960 cases, and partial in 16,593, while 51,053 applications were wholly infructuous. The percentage of fructuous applications to the total number of applications disposed of was 40.

Village Munsifs decided 7,080 cases out of a total of 7,270 for disposal. Of these 540, or 7 per cent., were contested cases, as compared with 6 per cent. in 1902.

Oudh.

The total number of suits instituted in Oudh was 46,841, as against 47,257 in 1902. In all, 56,673 suits were before the courts, and the number decided was 48,220, as compared with 47,240 in the previous year. The pending files fell from 8,505 to 8,453. The average duration of contested suits rose from 80·16 to 90·93 days. The total number of appeals from decrees before the courts was 5,238, as against 4,981 in 1902, but the pending file was reduced from 2,145 to 1,820. Of the appeals decided, 209 were dismissed, while previous orders were confirmed in 1,984 cases, modified in 438, and reversed in 584. Miscellaneous appeals numbered 774, out of which 658 were disposed of, previous orders being confirmed in 310 cases, modified in 23, and reversed in 103.

The Village Courts Act was extended during the year to parts of the Lucknow and Khevi districts. Of the total number of 257 Village Munsifs, only 16 took cases. Of 238 cases for disposal, 141 were disposed of, leaving 97 pending at the end of the year. It was said to be too early yet to speak with any confidence on the working of the Village Courts Act.

Punjab.

There was a further decrease of 4,986 in the total number of suits instituted in Civil Courts in the Punjab (214,622). The steady decrease in the volume of civil litigation was ascribed mainly to the effect of the Land Alienation Act in reducing pre-emption and mortgage suits, but it is probable that there were other contributory causes, notably plague. The total number of suits brought by money-lenders against agriculturists again fell, from 100,449 to 93,900, while suits to establish rights of pre-emption continued to decline.

Out of 258,751 suits for disposal in District Courts, 229,614 were decided. As compared with 1902 there was a fall of 6,602 in the number of disposals, but the pending file was reduced by 618. The average durations of contested and uncontested cases were 50 and 30 days respectively, as against 45 and 27 days in the previous year. This rise is a consequence of a change introduced in the method of calculating duration of cases; the duration of a case dismissed for default and subsequently re-admitted being now calculated from the date of first institution.

The percentage of appeals to appealable orders was the same as in 1902, namely 23. In Divisional Courts, 6,466 appeals were instituted, a decrease of 431, and the pending file was reduced by the same number to 1,988. In 36 per cent. of the cases the orders of the lower Courts were upheld. In District Courts appeals fell from 6,164 to 6,048, and the pending file decreased from 802 to 565. The percentage of confirmations was 53·8.

In the Chief Court, 9 original cases, 854 appeals from decrees, and 265 appeals from orders were instituted during the year. In 40 per cent. of the appeals the decisions of the lower Courts were affirmed. The number of disposals fell from 977 to 837, and the pending file rose from 1,529 to 1,811. The continued accumulation of arrears in the Chief Court was an unsatisfactory feature of the year's record.

Burma.

In the Burma Civil Courts there was a considerable increase in the volume of original litigation. The total number of suits instituted rose from 64,618 to 68,656, the increase being common to both sections of the province. In Lower Burma suits for money or movable property accounted for almost the whole of the increase; in Upper Burma it was attributed to the growth of trade and population. The number of cases disposed of during the year was 69,127, as compared with 64,784 in 1902. Of this number 20,859 were contested. There was a general decrease in the average duration of cases, and the pending file was reduced from 5,141 to 5,113.

The total number of regular appeals rose slightly to 5,377, of which 918 were pending at the close of the year. Decrees of lower Courts in Lower Burma were confirmed in 63 per cent. of cases, modified in 8 per cent., and

reversed in 27 per cent., the figures showing little variation from those of 1902. Out of 1,295 cases disposed of in District Courts in Upper Burma 62 per cent. were confirmed, as against 60 per cent. in the previous year. In Divisional Courts in Lower Burma the decrees were confirmed in 69 per cent. of the cases. In Upper Burma, only 11 appeals came before Divisional Judges, previous orders being confirmed in 6 of the cases. The Chief Court disposed of 274 appeals, as against 306 in 1902. CIVIL JUSTICE.

Applications for execution of decrees rose in Lower Burma from 23,739 to 25,658, and in Upper Burma from 8,411 to 8,814.

The question of the establishment of a separate Judicial Service for Lower Burma was still under consideration during the year under review, but the introduction of the new service has since been sanctioned.

The number of suits instituted in the Central Provinces fell from 80,681 to 75,933, a decrease which was probably partly attributable to the return of agricultural prosperity. The number of cases disposed of was 76,779, and the pending file was reduced from 13,325 to 12,509. The average duration of contested cases rose from 106 days to 114 days, and that of uncontested cases from 54 to 58 days. Central Provinces.

There was a considerable decrease in the number of appeals instituted, and a slight increase in the number disposed of. In the Court of the Judicial Commissioner 280 regular second appeals were disposed of, as against 500 in 1902, and the pending file rose from 40 to 207. Divisional Judges disposed of 395 cases, as compared with 388 in the previous year, and the number pending fell by 23. The District Appellate Courts had before them 5,116 appeals, and disposed of 4,311, the corresponding figures for 1902 being 5,598 and 4,703 respectively.

Applications for execution of decrees numbered 80,974, as compared with 91,572 in 1902. Of the applications disposed of, 57·4 were wholly infructuous, and in 19·5 per cent. satisfaction was obtained in full.

A new scheme was introduced during the year providing for the appointment of a large additional number of Munsifs and the gradual relief of Tahsildars and Naib-Tahsildars from civil work unconnected with the Rent Law.

The Civil Judicial Staff in Assam consisted of 3 District Judges, 8 Subordinate Judges, and 33 Munsifs. The number of original suits instituted during the year was 30,033, a decrease of 249 on the figure of 1902. The decrease was confined to Sylhet, there being an increase in the Assam Valley Districts and Cachar. Altogether there were 36,344 suits for disposal, and 30,537 were disposed of. This number was 152 less than the total disposed of in the previous year, the number of cases disposed of in Sylhet falling by 604. The pending file rose from 5,192 to 5,352. Assam.

In the High Court 196 appeals were preferred during the year, as against 91 in 1902. One hundred and two were disposed of, and the pending file rose from 201 to 295. Previous orders were confirmed in 60 cases, modified in 4, and reversed in 5. In Subordinate Courts 1,051 appeals were instituted, and 1,130 disposed of, the pending file being reduced from 939 to 882. Of 1,046 appeals decided after hearing the decisions of the lower Courts were affirmed in 74·9 per cent., and reversed in 15 per cent.

The number of applications for execution of decrees disposed of was 16,885, full satisfaction being obtained in 2,648 and partial satisfaction in 3,763 cases.

The suits instituted in the North-West Frontier Province during 1903 numbered 19,325, as against 18,797 in the previous year. Bannu continued to retain its place as the most litigious district in the province, while the institutions in Kohat were the lowest recorded for many years. All the districts of the province recorded a satisfactory decrease in pre-emption suits, with the exception of Peshawar, which was responsible for 394 cases out of the 698 instituted. North-West Frontier Province.

Of the 23,199 suits for disposal in the district courts, 21,098 were decided, a slightly greater number than in 1902. The average duration of suits in the province fell from 42 to 40 days in contested cases and from 25 to 22 days in uncontested suits.

CIVIL JUSTICE.

District judges and subordinate judges with appellate powers disposed of 486 appeals, as against 552 in 1902. The proportion of appeals in which the order of the lower court was interfered with was 30 per cent., as compared with 26 per cent. in the previous year. Divisional Courts disposed of 951 regular appeals, or 78 less than in the previous year. Of these no fewer than 700 were disposed of in the Peshawar divisional court. Previous orders were interfered with in 28 per cent. of the cases in Peshawar and 33 per cent. in the Derajat.

Berar.

The number of suits instituted in Berar during the year was 20,538, as against 24,842 in 1902. The decrease was common to all districts except Wun, where there was no plague. The figures showed that while plague seriously affected the number of suits which were not concerned with permanent interests, it had not the same effect on the institution of suits affecting permanent interests in land. There were in all 29,416 suits for disposal, as compared with 35,045 in the preceding year, and 74·5 per cent. were disposed of. The average duration of contested cases rose further from 226·4 days to 235·6 days.

As regards appeals, the number of cases for disposal and the number actually disposed of were higher than in 1902, both in the Judicial Commissioner's Court and in the Court of the Civil and Sessions Judge. The average duration of cases increased in each Court.

Of 30,378 applications for execution of decrees, 24,931 were disposed of, and the pending file was reduced from 6,561 to 5,447. But in no district was the number of pending cases reduced in proportion to the smaller number of cases to be disposed of.

Coorg.

The number of Civil Courts in Coorg was five, as in 1902. The total number of institutions declined from 1,550 to 1,511, but the value of suits increased by £574 to £18,364. The total number of suits decided (1,507) exhibited a falling off as compared with the previous year, but the disposals practically kept pace with the institutions, and the pending file only rose by four. Of 41 appeals disposed of during the year, in 23 the decisions of the courts below were confirmed and in 10 reversed. Execution proceedings (2,655) were 475 less than in 1902; the proportion of wholly infructuous applications (70·9 per cent.), though still exceedingly high, exhibited a slight improvement.

Madras.

There was no noticeable variation in the number of tribunals which exercised jurisdiction in Madras in 1903, except that Village Courts fell from 5,377 to 5,197. The year was marked by a considerable diminution in the volume of litigation, which was generally attributed to the favourable character of the season. The total number of suits instituted was 322,898, or 10,618 less than in 1902, the decrease occurring chiefly in the Village Courts, District Munsifs' Courts and Districts Judges' Courts. The number of appeals preferred was 12,336—541 more than in 1902. In spite of the decrease in the number of suits instituted, the amount involved in original litigation during the year rose from £3,000,000 to £8,246,666. In Village, Agency and District Courts the pending files were reduced, but arrears increased in the Revenue, District Munsifs' and Subordinate Judges' Courts, as well as in the Presidency Court of Small Causes.

Before Village Courts 78,967 suits were instituted, a decrease of nearly 6,000 on 1902, and 79,775 were disposed of. Out of 100,971 ordinary suits and 127,525 small causes for disposal (of which 75,729 and 117,034 respectively were instituted during the year) District Munsifs disposed of 76,361 and 117,404 respectively, as against 79,732 and 120,728 in 1902. In Subordinate Judges' Courts the numbers of ordinary suits and small causes disposed of were respectively 869 and 17,353, as compared with 987 and 18,229 in the previous year. In District Courts the numbers were 434 and 586, the figures for 1902 being 417 and 1,293 respectively.

In the High Court an increase of 22 in the number of suits instituted (218) was accompanied by a decrease of 28 in the number disposed of (175), and 154 cases were pending at the end of the year, as against 106 at its commencement. The average duration of contested suits was 219 days, of uncontested 266 days. The number of appeals of all kinds preferred to the High Court was 3,673. Two hundred and fifty-five first appeals and

1,095 second appeals were disposed of during the year, leaving 537 and 4,278 respectively pending for disposal. CIVIL JUSTICE.

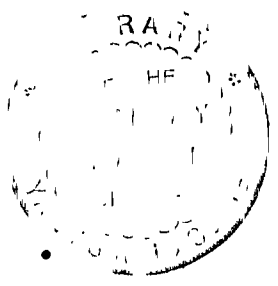
In the Bombay Presidency (including Sind) the total number of suits instituted showed a decrease from 187,570 to 182,971, which was attributed partly to plague. Of these, 75 per cent. were for money or movable property, and 17 per cent. related to immovable property, all other suits totalling 8 per cent. The percentage of contested suits was 30, as in 1902. There was a slight improvement in the average duration of contested and uncontested suits, the figures being 163 and 89 days respectively, as against 188 and 96 days in the previous year. The total number of suits disposed of was 184,003, as against 188,267 in 1902, and arrears increased from 38,078 to 38,677. Bombay.

Including arrears from the previous year to the number of 4,262, there were 9,299 appeals before the courts, of which 5,501 were decided, the pending file being thus reduced to 3,798. In 2,706 cases the decrees of the lower courts were confirmed, while 971 were not prosecuted or were dismissed. The average duration of appeals fell from 240 to 214 days.

Applications for execution of decrees numbered 200,472, and 203,329 were disposed of, arrears decreasing from 57,681 to 54,824. Excluding 2,630 applications disposed of by transfer, or under the Dakhan Agriculturists' Relief Act, 68 per cent. of the applications proved wholly infructuous; full satisfaction was obtained in 14 per cent. of the cases, partial satisfaction in the remainder. The total amount recovered in execution rose from £278,316 to £337,485. The number of persons imprisoned in process of execution was 895, as against 973 in 1902.

The total number of applications for declaration of insolvency disposed of during the year was 206, in addition to 81 applications transferred or withdrawn. The applications were granted in 46 per cent. of the cases and rejected in 54 per cent.

In the four districts to which the Dakhan Agriculturists Relief Act applies, there was a decrease of 3,006 suits, or nearly 65 per cent. of the whole decrease. The falling-off in these districts was attributed partly to a rise in the number of conciliation agreements and partly to the favourable season.



## CHAPTER IV.

REGISTRATION.

REGISTRATION.

General.

The Registration Law of 1877 was in force during the year under review throughout British India, with the exception of Upper Burma, for which Regulation II. of 1897 still provides a less complete procedure, and of certain other tracts in which the conditions are exceptional. For the purpose of registration, documents are divided into (*a*) those of which registration is compulsory, or necessary to the validity of the deed, and (*b*) those which are not required by the law to be registered, but which can be so treated or not at the option of the holder, though liable, if unregistered, to be superseded by subsequent registered documents, subject to the equitable doctrine of notice. In the former class are deeds of gift of immovable property, or other documents, excluding wills, which affect rights in such property of value more than Rs. 100, and, with certain exceptions, annual or longer leases. In the second category, that of optionally registrable documents, are those relating to immovable property not included in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As concerns transfers of immovable property, however, the situation is affected in most provinces by the Transfer of Property Act of 1882. This Act was in force during the year under review throughout British India, with the exception of Burma (outside Rangoon), the Punjab, and Sind, and other scheduled districts. Under its provisions all transfers by sale or mortgage of immovable property had to be registered, excepting that in the case of tangible immovable property of value below Rs. 100 transfer might alternatively be effected by delivery of the property and the registration of mortgage deeds for such small sums was not compulsory. The Act was amended in 1904, the most important change being that all deeds transferring immovable property, of whatever value, require to be registered, though when the value is less than Rs. 100 transfer may still be made without a deed; and a similar change was made in respect of the leases to which the Act applies. The operation of the Act has also been largely extended in Lower Burma. Offices are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. The total registration receipts of the year 1903–04 were £326,900 as compared with £312,600 in the preceding year; and the cost of the registration offices was £177,800, leaving a surplus of £149,100, against £140,800 in the year 1902–03.

Bengal.

There was in the year 1903 a decrease in the total number of deeds registered in Bengal from 1,468,000 to 1,448,000. The deeds affecting immovable property which come under the compulsory classes were chiefly responsible for this fall. They comprised 978,900 registrations, the value of the property concerned being £11,946,000. Optional registrations relating to immovable property showed a slight increase, numbering 290,820. Sales of immovable property showed a small advance, numbering 398,600. Mortgages coming under the compulsory heading numbered 153,500, or rather less than in 1902, but the value represented was greater. The aggregate value of the property affected by the documents registered amounted to £14,664,000; more than one fifth of that amount is contributed by the comparatively small number of deeds (4,654) registered in Calcutta. The number of registered transfers of holdings by tenants paying at fixed rates or enjoying occupancy rights was 300,600, the transfer was made in 195,100 cases to other ryots, and in 32,600 cases to traders or money-lenders. Occupancy holdings realised 19·9 years' purchase against 19·2 years' purchase in 1902. Registrations under the Bengal Tenancy Act numbered 87,800.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year ending in September 1903, the latest year for which statistics are available, in parts of the Champaran and Muzaffarpur districts, but the operations were on a small scale, and showed a tendency to decrease. The total number of mutations recorded during the

year was 2,785 (2,075 sales and 728 successions), against 3,111 in the preceding year. Only 916 mutations were recorded on application, as against 1,094 in the year 1901–02. REGISTRATION.

The number of documents registered in the United Provinces fell from 199,900 to 198,200 in the year 1903, of which 161,200 affected immovable property. The number of registered sales of such property fell from 44,700 to 43,900, and that of mortgages rose from 69,900 to 71,800; while the number of term leases again showed a decided fall, and has now returned to the amount usual before the disturbance caused by the introduction of the Tenancy Bill. The value of the immovable property affected by the deeds registered was £6,433,000. The value of all classes of property affected by all deeds registered during the year was £7,086,700. United Provinces.

The number of documents registered in the Punjab in the year 1903 was 72,500, or rather more than in the preceding year. In the class of compulsory registrations of immovable property, the deeds numbered 55,450 against 50,950 in 1902, an increase which indicates the revival of business from the effect of the passing of the Alienation of Land Act, a revival which had begun in the later months of 1902. Including the optional classes, registrations of deeds affecting immovable property numbered 67,200, of which 25,500 were sales and 36,400 were mortgages. The total value of all classes of property transferred under the documents registered was £2,530,000, of which £2,013,000 represents sales and mortgages of immovable property. Punjab.

The number of registrations in Lower Burma increased from 28,300 to 33,400, the increase occurring for the most part in deeds of which registration is compulsory, and being ascribed partly to the high prices of paddy and partly to speculation in land. The aggregate value of immovable property affected was £3,792,000, which was 53 per cent. above the figure for 1902. Of this total, £1,819,000, or 48 per cent., represents property in Rangoon town. The registration system of Upper Burma differs from that of Lower Burma, but the intention is to introduce the Lower Burma system, with rules under the Registration Act, at some not far distant date. The deeds affecting immovable property registered in Upper Burma showed no noticeable variation in 1903 as compared with the previous year, but the value of the property affected was higher, amounting to £315,600; 521 deeds affecting movable property were filed under the optional system established in 1898–99. Burma.

The number of registrations in the Central Provinces and Berar fell from 55,100 to 52,400, of which 32,700 were made in Berar. The number of registrations relating to immovable property under the compulsory heads has fallen considerably in the Central Provinces, which is held to be a sign of greatly increased prosperity among the agricultural classes. In Berar they were more numerous than in 1902, possibly owing to movements in the cotton trade. The aggregate value of the property affected fell to £1,443,700, which included £653,600 under sales, and £512,000 under mortgages, of immovable property. The greater part of the sales are made to agriculturists, while mortgages, on the other hand, are to a larger extent made to the non-agricultural classes. Central Provinces and Berar.

In Assam 55,400 documents were registered, or 4 per cent. more than the total of the preceding year; 75 per cent. of the registrations occurred in the Sylhet district; 47,200 of the deeds related to transactions affecting immovable property, which were more numerous than in the previous year. The aggregate value of property affected by the deeds registered was £595,500, of which £454,800 related to immovable property. The number of registrations in the optional class rose from 12,600 to 14,200. Assam.

In Madras the number of registrations rose from 937,600 to 943,400, though many districts showed a decline. The number of registered sales of land was 332,000, or rather more than in the preceding year; of that number more than half affected land worth less than Rs. 100; the number of other deeds affecting immovable property was lower than in the previous year, while those relating to movable property, which are comparatively few in number, showed a slight recovery. The value represented by the registered sales and mortgages of immovable property amounted to £10,138,000, by other deeds affecting such property £3,165,000, and by deeds affecting movable property £641,000. Madras.

REGISTRATION. Bombay.

The number of registrations in Bombay was 161,600, or 3 per cent. less than in 1902, the decrease occurring in most districts, and being ascribed in part to the liberal grant of agricultural loans by the Government, partly to the ravages of plague, and partly also to the recovery of the ryots from past bad seasons. The decrease occurred in practically all classes of deeds. Registered deeds of sale or exchange and mortgages of immovable property numbered 68,100 and 50,600 respectively, against 65,700 and 55,400 in the previous year; but the average value of all deeds transferring land was higher than in the preceding year, and the aggregate value represented by such deeds was £5,750,000. Deeds affecting movable property showed a decline both in number and in the value of the property concerned.

Under the special law for the protection of agriculturists in the four Deccan districts of Poona, Satara, Ahmednagar, and Sholapur, there were 90,000 registrations, which was nearly 12 per cent. below the total of the previous year, owing to the same causes as were noted above. Sales, leases, and mortgages of agricultural land all shared in the fall, and the transactions between agriculturists on both sides appear from the returns to have increased, whether owing to genuine agriculturists having undertaken money-lending or to money-lenders having registered themselves as agriculturists after acquiring land. The aggregate value of property concerned in these special registrations was £305,700.

North West Frontier Province.

The figures of registration in the North West Frontier Province are small in comparison with those of other provinces, but it may be observed that there was an increase in the compulsory classes of registrations, affecting immovable property, from 9,000 to 9,400, occurring in the Peshawar district.

## JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

The Report on Joint Stock Companies for 1903–04 for the whole of India shows that the number of new joint stock companies registered was 123, with a nominal capital of £1,754,600, and a paid-up capital of £22,400; while 74 companies, with a paid-up capital of £581,800, ceased to work. On the other hand, the paid-up capital of 441 companies was increased by an aggregate amount of £1,017,600, while 89 companies reduced their paid-up capital by £271,300 in all. The net result was that at the end of the year there were in operation 1,489 companies, with a nominal capital of £36,928,000 and a paid-up capital of £26,474,000, which is 1·5 per cent. larger than the figure for 1902–03. The companies are most important in the provinces of Bengal and Bombay, which possess 43 and 39 per cent. respectively of all the paid-up capital; in Madras the number of companies (443) was larger than in either of the two former provinces, but the paid-up capital constituted only about 7 per cent. of the whole; in the United Provinces the paid-up capital of the 86 companies aggregated 5 per cent. of the whole; in no other province did the aggregate paid-up capital of registered companies reach £600,000. The Bombay companies are, taking the figures as they stand, the richest, the average of paid-up capital for the 336 companies in that presidency being £30,600; while for the 416 companies of Bengal it is £27,300, for the 443 of Madras £4,300, and for the 86 of the United Provinces £15,300. The average in Bengal has risen much in recent years, owing to the extinction of most of the native provident societies with practically no paid-up capital, but it showed a small decline in 1903–04. This was also the case in Bombay, where there still remain 63 companies having no paid-up capital. The number of such companies increased in Madras from 20 to 49 during the year, most of those newly created being of the nature of death or marriage benefit societies. The distribution of paid-up capital among registered companies for different classes of industry was as follows:—

| | Paid-up Capital. £ | | Paid-up Capital. £ |
|---|---|---|---|
| Banking and insurance - | 3,254,000 | Mills and presses - - | 12,547,000 |
| Trading and shipping - | 5,269,000 | Tea and planting - - | 2,433,000 |
| Mining and quarrying - | 1,756,000 | Other industries - - | 1,215,000 |

JOINT STOCK COMPANIES.

The group of companies with the largest aggregate subscribed capital, £12,547,000, constituting over 47 per cent. of the total paid-up capital, were for weaving and spinning or for pressing cotton, jute, wool, and silk; and nearly 58 per cent. of the capital of such undertakings belonged to the Bombay Presidency. In the 15 years from 1889–90 to 1903–04 the number of joint stock companies at work has risen from 886 to 1,489, and the paid-up capital has risen from $15\frac{3}{4}$ to $26\frac{1}{2}$ millions of pounds.

## PATENTS AND DESIGNS.

PATENTS.

The total number of applications filed in 1903, the latest year for which statistics are to hand, for the registration of inventions under the Patents Law was 536, or 12 more than in the preceding year. Of these, 56 were refused or abandoned, and 112 were undecided at the end of the year. Forty-seven only of the applications were made by natives of India, 126 by Anglo-Indians, and 363 by other persons. The number of specifications filed during the year was 330, or 45 less than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 542. There were 41 applications for the registration of designs, of which 10 were rejected.

FINANCE.

# CHAPTER V.

# FINANCE.

## FORM OF ACCOUNTS.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee, and that the Government is under obligations to carry out certain transactions at fixed rates differing from the rate of sixteenpence to the rupee, are included in a single line under the head of Exchange.

## GROSS REVENUE AND EXPENDITURE.

Gross Revenue and Expenditure.

The gross revenue and expenditure of British India in 1902–03 and 1903–04 were as follows:—

| —— | 1902–03. | 1903–04. | Difference. |
|---|---|---|---|
| | £ | £ | £ |
| Revenue - - - - | 77,434,915 | 83,756,155 | +6,321,240 |
| Expenditure - - - - | 74,365,366 | 80,759,755 | +6,394,389 |
| Surplus - - £ | 3,069,549 | 2,996,400 | —*73,149 (less)* |

The gross revenue includes all receipts, and the gross expenditure all payments. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the charges of revenue-earning departments are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

## NET REVENUE.*

| | 1902-03. | | 1903-04. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c.: | | | | | | |
| Land Revenue | 17,689,653 | | 18,508,738 | | +819,085 | |
| Forests | 1,295,029 | | 1,477,393 | | +182,364 | |
| Tributes from Native States | 581,995 | | 410,827 | | *−171,168* | |
| | | 19,566,677 | | 20,396,958 | | +830,281 |
| Opium: Net Receipts | — | 2,846,869 | — | 3,506,178 | — | +659,309 |
| Taxation: | | | | | | |
| Salt | 5,931,933 | | 4,981,704 | | *−950,229* | |
| Stamps | 3,434,401 | | 3,538,237 | | +103,836 | |
| Excise | 4,384,181 | | 4,932,500 | | +548,319 | |
| Provincial Rates | 2,741,449 | | 2,821,967 | | +80,518 | |
| Customs | 3,829,848 | | 3,839,066 | | +9,218 | |
| Assessed Taxes | 1,402,672 | | 1,206,636 | | *−196,036* | |
| Registration | 312,659 | | 326,041 | | +13,382 | |
| | | 22,037,143 | | 21,646,151 | | *−390,992* |
| Commercial Undertakings: | | | | | | |
| Post Office | 83,157 | | 103,929 | | +20,772 | |
| Telegraph | *−32,763* | | *−59,189* | | *−26,426* | |
| Railways | 228,949 | | 860,669 | | +631,720 | |
| Irrigation | 193,746 | | 231,756 | | +38,010 | |
| | | 473,039 | | 1,137,165 | | +664,076 |
| Miscellaneous Receipts: | | | | | | |
| Mint | *−12,776* | | 99,181 | | +111,957 | |
| Miscellaneous | *−254,316* | | *−82,733* | | +171,583 | |
| | | *−267,092* | | 16,448 | | +283,540 |
| Exchange | — | 31,571 | — | 58,429 | — | +26,858 |
| Total Net Revenue £ | — | 44,688,257 | — | 46,761,329 | — | +2,073,072 |

## NET EXPENDITURE.*

| | 1902-03. | | 1903-04. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation). | — | 965,018 | — | 801,565 | — | *−163,453* |
| Military Services: | | | | | | |
| Army | 16,221,402 | | 16,775,780 | | +554,378 | |
| Military Works and Special Defence Works. | 1,058,368 | | 1,016,625 | | *−41,743* | |
| | | 17,279,770 | | 17,792,405 | | +512,635 |
| Collection of Revenue | — | 4,704,858 | — | 4,938,385 | — | +233,527 |
| Civil Services: | | | | | | |
| Civil Departments | 10,366,855 | | 10,381,887 | | +15,032 | |
| Miscellaneous Civil Charges | 3,640,258 | | 3,631,364 | | *−8,894* | |
| Civil Works (including Railways charged to Provincial or Local Revenues). | 3,751,798 | | 4,118,384 | | +366,586 | |
| | | 17,758,911 | | 18,131,635 | | +372,724 |
| Famine Relief and Insurance | — | 982,576 | — | 905,680 | — | *−76,896* |
| Provincial Balances: | | | | | | |
| 1. Increased by portion of allotments not spent in the year. | — | — | — | 1,195,259 | — | +1,267,684 |
| 2. Decreased by expenditure from balances. | — | *−72,425* | — | — | — | |
| Total Net Expenditure charged against Revenues. | — | 41,618,708 | — | 43,764,929 | — | +2,146,221 |
| Surplus | — | 3,069,549 | | 2,996,400 | | *−73,149* |

* Figures for the 11 years ending 1903-04 will be found in Parliamentary Paper, House of Commons o 1905

FINANCE. Net Revenue and Expenditure.

Thus there was in 1903–04, as compared with the previous year, an increase in the net revenue of £2,073,072, and an increase in the net expenditure of £2,146,221; in India the net revenue was higher by £2,103,424 and the net expenditure by £2,443,859, whilst in England the net disbursements were less by £267,286. In 1902–03 there was a surplus of £3,069,549, and one of £2,996,400 in 1903–04.

Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the most important increases and decreases in 1903–04:—

*Net Revenue.*

*Increases.*—The Land Revenue in 1903–04 showed an advance of £819,085 over the figures of the previous year. The improvement was general throughout India, and is attributed to the recovery of the country from the effects of the famine of 1899–1900. The increase in the Excise revenue, £548,319, is chiefly due to the same cause. Under Opium there was an increase of £659,309; the prices realised at the Calcutta sales in 1903–04 were exceptionally high, and the exports of Malwa opium were also large. Under Railways the improvement amounted to £631,720.

*Decreases.*—Towards the close of the year 1902–03 the Government of India decided to make important reductions in the Salt duty and the Income Tax. In accordance with this decision the Salt duty was lowered from the 18th March 1903 to 2 rupees per maund in India generally, with corresponding reductions in those districts, excluding Burma, where the duty had been less than that generally imposed, and from the 1st April 1903 the limit of exemption from income tax in the case of private incomes was raised from Rs. 500 to Rs. 1,000. Owing to these reductions there was a decrease in 1903–04 in the net revenue from Salt and Assessed Taxes amounting to £950,229 and £196,036 respectively.

*Net Expenditure.*

*Increases.*—The most important is that under the head of Provincial Balances, viz., £1,267,684. In 1902–03 the revenue accruing to the Provincial Governments was £19,746,970 and their expenditure £19,819,395, the excess outlay, £72,425, being taken from their balances. In 1903–04, the amount that was credited to them out of the total revenue receipts rose, owing to large special grants by the Government of India, to £21,554,521, while their expenditure was only £20,359,262. There was thus £1,195,259 to be added to their balances, and the Provincial Adjustments were thus less favourable to the Government of India in 1903–04 than in 1902–03 by £1,267,684 (= £1,195,259 + £72,425). The special grants by the Government of India which have been referred to above were as follows:—

| | £ |
|---|---|
| To Bengal, Madras, the United Provinces, and Assam, in connection with the introduction of new arrangements for regulating the financial relations between the Government of India and the Governments of those Provinces - - - - - - - - | 1,000,000 |
| To Bombay, the Punjab, and the Central Provinces to enable them to close the year with the prescribed minimum balance - - - - - - | 241,700 |
| To eight provinces for expenditure on education and various objects of public utility - - - - | 1,084,300 |

The expenditure on the Army in 1903–04 shows an increase of £554,378, due chiefly to charges on account of the Mission to Tibet and the Aden Boundary Commission. Under Civil Works there was an increase of £366,586.

*Decreases.*—There was a decrease of £163,453 in the net payments for interest (excluding amounts charged under the Railway Revenue Account and Irrigation).

FINANCE.

The tables in the Appendix show the net revenue and expenditure in India of the several Provinces under the chief heads for the years 1902–03 and 1903–04, and the net payments in England.

The following summary shows the surpluses or deficits in the various Provinces and the net expenditure by the Government of India and the Secretary of State :—

| Provinces, &c. | 1902-03. | | 1903-04. | |
|---|---|---|---|---|
| | Surplus. | Deficit. | Surplus. | Deficit. |
| | £ | £ | £ | £ |
| Bengal - - - | 8,413,632 | — | 7,849,933 | — |
| United Provinces - - | 4,488,197 | — | 4,250,441 | — |
| Punjab - - - | 2,541,780 | — | 3,283,081 | — |
| Burma - - - - | 2,349,816 | — | 2,532,742 | — |
| Central Provinces - - | 577,446 | — | 527,255 | — |
| Assam - - - - | 225,937 | — | 141,305 | — |
| Madras - - - | 3,760,650 | — | 3,139,301 | — |
| Bombay - - - | 3,498,215 | — | 4,289,191 | — |
| North-West Frontier Province | — | *—221,712* | — | *—262,938* |
| Berar - - - | 357,922 | — | 336,350 | — |
| India, General - - - | — | *—5,255,318* | — | *—5,690,531* |
| England - - - | — | *—17,687,016* | — | *—17,399,730* |
| Net result - - | 3,069,549 | — | 2,996,400 | — |

## CAPITAL OUTLAY ON PUBLIC WORKS.

Capital outlay on public works.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

| | 1902-03. | 1903-04. |
|---|---|---|
| | £ | £ |
| Amount supplied by Ordinary borrowing or from the Cash Balances, without being charged against the Revenue of the year : | | |
| State Railways - - - - - - | 3,260,640 | 4,535,105 |
| Irrigation Works - - - - - - | 564,191 | 907,898 |
| Amount met by Debenture Stock issued by the East Indian Railway Company. | 1,303,361 | — |
| Amount defrayed from Revenue : | | |
| Provincial Railways - - - - - | 54,659 | 26,550 |
| Preliminary railway expenditure not originally charged to construction. | 18,565 | — |
| Protective Railways - - - - - - | 1,625 | 96,605 |
| Protective Irrigation Works - - - - | 94,742 | 144,446 |
| Other Irrigation Works* - - - - - | 66,405 | 22,298 |
| Total Direct Outlay by the State - | 5,364,188 | 5,332,902 |
| Outlay by companies guaranteed or subsidised by Government | 2,194,067 | 1,857,961 |
| Outlay by railways outside Government accounts - - | 668,060 | 418,691 |
| Outlay by Local Boards - - - - - | — | — |
| Total Capital Outlay on Railways and Irrigation - £ | 8,226,315 | 7,609,554 |

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

FINANCE.

## DEBT.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1903–04, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1 :—

| | Amount of Debt on 31st March 1903. | Amount of Debt on 31st March 1904. | Increase. | Decrease. |
|---|---|---|---|---|
| | £ | £ | £ | £ |
| In India (permanent) - - | 78,369,37[illegible] | 79,616,202 | 1,246,825 | — |
| „ (temporary) - - | — | 333,333 | 333,333 | — |
| In England (permanent) - - | 130,296,261 | 131,045,844 | 749,583 | — |
| „ (temporary) - - | 3,500,000 | 2,000,000 | — | 1,500,000 |
| Total - - £ | 212,165,638 | 212,995,379 | 829,741 | — |

In India a loan of two crores of rupees (£1,333,300), bearing interest at 3½ per cent., was raised at an average price of 98·1 per cent. In England £1,500,000 India 3 per cent. Stock was issued at an average price of £98 19s. 0d. per cent., the proceeds being used for the discharge of £600,000 debentures of the Great Indian Peninsula Railway, and towards the discharge of India Sterling Bills falling due in the year. Of the £3,500,000 sterling bills outstanding on 1st April 1903, £1,500,000 were discharged without replacement. Bills in replacement of the remaining £2,000,000 were issued at average rates of £3 7s. 5d. (June, 1903), £3 11s. 6d. (September), £3 12s. 11d. (December), £3 5s. 2d. (March, 1904).

## OTHER OBLIGATIONS OF THE GOVERNMENT OF INDIA.

Other obligations.

Particulars regarding the obligations of the Government of India other than the permanent or temporary debt, and of loans by the Government of India and the Provincial Governments, are given in the following tables :—

OBLIGATIONS.

| | Amount outstanding 31st March 1903. | Amount incurred 1903-04. | Amount discharged. 1903-04. | Amount outstanding 31st March 1904. | Increase 1902-03. | Decrease 1902-03. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Savings Bank Deposits | 9,040,875 | 3,643,472 | 2,886,009 | 9,798,338 | 757,463 | — |
| Deposits of Service Funds. | 1,157,892 | 96,555 | 83,739 | 1,170,708 | 12,816 | — |
| Excluded Local Funds | 243,103 | 756,891 | 719,941 | 280,053 | 36,950 | — |
| Railway Funds - - | 75,243 | 64,215 | 66,548 | 72,910 | — | 2,333 |
| Deposits of Sinking Funds. | 81,931 | 9,884 | — | 91,815 | 9,884 | — |
| Special Loans - | 1,126,802 | — | 58 | 1,126,744 | — | 58 |
| Treasury Notes - | 29,861 | — | — | 29,861 | — | — |
| Departmental and Judicial Deposits. | 3,555,241 | 17,457,532 | 17,406,651 | 3,606,122 | 50,881 | — |
| Total - - | 15,310,948 | 22,028,549 | 21,162,946 | 16,176,551 | 867,994 | 2,391 |

## LOANS BY THE GOVERNMENT OF INDIA AND THE PROVINCIAL GOVERNMENTS.

| — | Amount outstanding 31st March 1903. | Amount advanced 1903-04. | Amount repaid 1902-03. | Amount outstanding 31st March 1904. | Increase 1903-04. | Decrease 1903-04. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Loans by the Government of India to Port Trusts, Municipalities, Native States, &c. | 8,799,492 | 500,084 | 387,235 | 8,912,341 | 112,849 | — |
| Loans by the Provincial Governments. | 3,798,772 | 516,676 | 988,400 | 3,327,048 | — | 471,724 |
| Total - - | 12,598,264 | 1,016,760 | 1,375,635 | 12,239,389 | — | 358,875 |

## CASH BALANCES.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :— Cash balances.

| — | On 1st April. | | | Increase or Decrease. | |
|---|---|---|---|---|---|
| | 1902. | 1903. | 1904. | In 1902-03. | In 1903-04. |
| | £ | £ | £ | £ | £ |
| In India - - | 11,880,301 | 12,082,416 | 11,869,552 | +202,115 | *—212,864* |
| In England - - | 6,693,137 | 5,767,787 | 7,294,782 | *—925,350* | +1,526,995 |
| Total - - | 18,573,438 | 17,850,203 | 19,164,334 | *—723,235* | +1,314,131 |

## COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints in India was :— Coinage and paper currency.

| — | 1902-03. | 1903-04. |
|---|---|---|
| | £ | £ |
| Silver - - - - | 12,383,966 | 13,889,738 |
| Copper - - - - | 91,765 | 127,857 |
| Total - - £ | *12,475,731* | *14,017,595* |

The silver coinage in 1903–04 consisted of 161,717,556 rupees, 7,060,180 quarter rupees, 14,631,520 eighth rupees, and 18,965,538 British dollars for use in Singapore, Penang, and Hong Kong. A small part of the rupee coinage was undertaken on behalf of the Native States of Indore, Sirohi, and Khairpur, the balance being for circulation in British India.

The receipts and expenditure of the Indian Mints were as follows :—

| — | 1902-03. | 1903-04. |
|---|---|---|
| | £ | £ |
| Receipts - - - - | 411,238 | 2,884,766 |
| Expenditure - - - | 424,014 | 2,785,585 |
| Net Receipts - - | *—12,776* | *99,181* |

FINANCE.

The expenditure includes, in addition to ordinary mint charges, a payment to the Gold Reserve Fund of the net profit on the coinage of new rupees. The amount of the net profit so included in the two years is as follows :—

1902–03, £264,028 ; 1903–04, £2,627,575.

On the 31st March 1904, the Gold Reserve Fund consisted of Consols and other stock of the nominal value of £6,376,520, in addition to a sum of £167,575 held in India in gold or in the Treasury balances.

*Paper Currency.*—On the 31st of March 1904 the value of notes in circulation was £25,474,436, being greater by £1,658,698 than on the corresponding date in 1903. The paper currency reserve was, in gold £10,789,567, in silver coin £7,665,043, in silver bullion £353,163, and £6,666,663 invested in securities of the Government of India.

## RATE OF EXCHANGE.

Rate of exchange.

In 1902–03 the Secretary of State for India in Council sold Bills and Telegraphic Transfers on the Treasuries in India for Rs. 27,74,67,265, and received for them £18,499,947 ; the average rate was thus 1*s.* 4·00184*d.* per rupee. The Bills and Telegraphic Transfers sold in 1903–04 amounted to Rs. 35,67,94,845 ; the sterling received was £23,859,303 ; and the average rate was 1s. 4·04909*d.* per rupee.

# CHAPTER VI.

## SURVEYS.

Surveys.

### Survey of India Department.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical surveys, forest and cadastral surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year 1902–03. Particulars of the progress of forest and cadastral surveys, which are carried out partly by local agencies, are given in the chapters on forests and land revenue. The Survey Department has now a general control over the forest surveys, and in most provinces over the cadastral surveys. The recent Bombay survey, however, was conducted by a separate department, and there is also a Madras Survey Department in charge of the operations in that Presidency. At the end of the year 1904 a Committee was appointed by the Government of India to consider, in consultation with experts from England, the question of the state of the topographical surveys and other cognate matters.

Reviewing first the operations of the Survey of India Department during 1902–03 as a whole, the field operations of the year were carried on by three double and 15 ordinary parties and two detachments. Of these, one party was employed on trigonometrical surveys; one double and six ordinary parties and one detachment on topographical surveys; one double and two ordinary parties on forest surveys; one double and two ordinary parties and one detachment on cadastral and traverse surveys; and four parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical.

The party (No. 24) which was engaged on trigonometrical work, having completed the Manipur Minor Meridional series, was employed in extending the Great Salween principal series eastwards.

Topographical.

The total area topographically surveyed during the year was 22,646 square miles; 53 per cent. of this area was surveyed on the 1-inch scale, the remainder for the most part on the scale of 2 inches to the mile. The work of all the parties was carried on in continuation of that of the previous year, no change in the locale of operations having occurred. The amalgamated parties Nos. 11 and 21, engaged in Upper Burma, surveyed an aggregate area of 2,432 square miles on the 1-inch scale in the Shan States. It has been decided to carry this survey right up to the frontier. No. 10 party was engaged in the eastern portion of Upper Burma in revising and adding to the maps produced by reducing the cadastral sheets, inserting hills and other topographical detail. This work was carried out over the area of 3,336 square miles, on a 1-inch scale. Another party, No. 3, engaged in Lower Burma on similar operations, completed 1,786 square miles of new detail survey and 2,934 square miles of supplementary topographical survey, all on the same scale. The question as to how far topographical surveys should be carried in Burma has been decided, and a five years programme has been fixed for parties Nos. 3 and 10, embracing a large area of the more important tracts of country. No. 12 party continued the survey of Sind on the 2-inch scale, and completed an area of 1,946 square miles, besides a special survey of the desert portions lying to the east, on the $\frac{1}{2}$-inch scale, of which 2,164 square miles was completed. They also made a survey of the Sambhar Salt lake and its surroundings. The work of No. 15 party consisted in topographical survey of 1,499 square miles in Sind, in addition to reconnaissance survey on the frontier, and the compilation of maps of various cantonments. The Himalaya party, No. 18, carried out supplementary topographical surveys in an area of 3,653 square miles in the Montgomery, Lahore, and Amritsar districts of the Punjab, to render the large scale *patwari* maps of the province available for topographical purposes. They were also engaged with the Simla and the riverain surveys. No. 14 party

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continued its work in the Allahabad division of the United Provinces, where it is engaged in a full topographical survey on the scale of 2 inches to the mile; 1,885 square miles were completed during the year. A detachment in the Central Provinces mapped and surveyed 2,834 square miles of Jubbulpore and the surrounding districts; the maps being based on various existing sources, and corrected by supplementary survey in the field.

Special operations. *Geodetic.*

Two parties (Nos. 22 and 23) were combined and employed on latitude observations at stations in the vicinity of Calcutta. The operations have in view the testing of Major Burrard's theory that the deflections of gravity in India, which had previously been attributed to accidental and local attractions, could in reality be classified by regions. This theory appears now to have been established, and it will have a profound influence on future investigations and programmes.

*Tidal and levelling operations.*

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year by No. 25 party at nine stations, two having been closed during the year. The levelling detachment was again employed in Upper Burma on two separate lines of levelling, namely, from Thazi to Minbu and from Sagaing to Tantabin, and completed 215 miles of work.

*Magnetic.*

The Magnetic Survey party, No. 26, made good progress, although, owing to non-delivery of certain instruments from England, only four out of the five base stations were in working order. These were at Barrackpore, Dehra Dun, Colaba, and Kodaikanal, the Rangoon observatory not yet having had its magnetographs tested by Kew. Observations were taken at nine repeat stations and 370 other places.

Geographical surveys and explorations.

Under the geographical head are included surveys and reconnaissances which are executed on the scale of half an inch to a mile or smaller scales. In Sind, as already mentioned, an area of 2,164 square miles of desert country was surveyed on the half-inch scale; while a surveyor attached to a shooting party brought in a reconnaissance survey of 38,000 square miles of Western Thibet. Much work was also done across the frontier.

Map production.

The Drawing Office was engaged as usual in the compilation and revision of the various general maps, and on additions to standard sheets when fresh material was available, besides publishing and preparing the sheets received from the field parties, issuing cadastral maps, and miscellaneous work. Three sheets of the new $\frac{1}{1,000,000}$ map of India were practically completed, and two other sheets were in hand. The new 32-mile lithographed map of India had not made such quick progress as was hoped; but it was further advanced during the year. The usual large quantity of provincial and other maps and plans occupied the drawing, photographic, and lithographic branches.

## OTHER SURVEYS.

Marine surveys.

The marine survey vessels "Nancowry" and "Investigator" were employed in surveying the Burmese coast. The former, on its way from Calcutta, attempted to observe the bore of the Megna river, but failed to obtain precise observations owing to the loss of an anchor. The approaches to the Hinze basin were surveyed, and it was found that, owing to the large rise and fall of the tide, the basin could be entered by vessels of fairly deep draught if required, though the basin was found to be much smaller than was supposed. Good progress was made with the survey of the Mayu river, and subsequently the survey of the Arakan coast was taken in hand and a re-survey of Akyab was commenced.

Geological.

The report of the Geological Survey Department for the year 1903–04 is not available. During the year 1902–03 the Department was engaged in the investigation of coal fields on the Shillong plateau in Assam and in the Mianwali district of the Punjab, on neither of which was a decision reached during the year; also of promising deposits of chrome iron in Baluchistan and fire-clay in Assam. A survey of the auriferous region of Chota Nagpur was continued and completed, but the results were not favourable, as they did not include a single instance which could reasonably be regarded as a legitimate mining proposition. Other inquiries of an economic nature were also carried out in connection with iron and manganese in the

Dhar State, an oilfield in Burma, and other matters, with inconclusive results. Geological surveys not having a directly economic character were also in progress in many parts of India, including Assam, Baluchistan, Burma, the Dhar State in Central India, Kashmir, and Madras, while an officer of the Department accompanied Professor Koken, of Tübingen, on a tour of observation in the Salt Range of the Punjab. Surveys.

The Botanical Survey of India is also being conducted not only from a scientific, but also from an economic and agricultural point of view. Various investigations were carried out by officers of the Department, or by native collectors, with a view to the completion of the botanical records and publications. The economic questions dealt with were chiefly concerned with the various species of *Agave* that occur in India, the sources of the fibres vaguely classed as Indian hemp, and similar matters. The number of plants distributed from the Calcutta Botanic Garden during the year was nearly 39,000. A large portion of the central section of the great banyan tree in the Gardens fell in March 1904, owing apparently to the progress of natural decay. Botanical.

The Archæological Surveyor of Western India toured in Central India, the Central Provinces, and Rajputana. The expenditure on the conservation of ancient monuments in the Bombay Presidency amounted to £2,200; that in the Central Provinces and Berar to £700. The amalgamation of the archæological circles of the United Provinces and Punjab was effected in July 1903. There are still, however, two officers, one of whom, known as the Superintendent, has his headquarters at Lahore and is concerned solely with the architectural side of Muhammadan archæology. The other officer, known as the Surveyor, has the supervision of the buildings at Agra, Jaunpur, Delhi, Lahore, and Ajmere, and deals with matters affecting Hindu and Buddhist buildings. The former was engaged at first in excavations at Charsada, in the Frontier Province, and subsequently visited Chamba and the ancient temples of Kashmir, and places in the United Provinces. The North-West Frontier Province and Baluchistan have been placed, as regards archæological work, under the separate charge of Dr. M. A. Stein. The amount of £12,400 was spent in the United Provinces and Punjab circle from Government revenues on conservation of monuments. In Madras, excavation of prehistoric remains at Adinachallur and other places in the Tinnevelly district resulted in the unearthing of a very large number of objects of great interest. In Bengal, the chief work of the year was the excavation of the ancient site of Vaisali at Basarh and the adjacent villages in the Muzaffarpur district; £4,150 was spent on conservation in Bengal. In Burma, the amount of such expenditure was £5,100. Much progress was made in improvements to the Mandalay palace and its surroundings. The report of the Director-General of Archæology, which will give a summarised view of the archæological work of the year 1903–04, has not been received in time for review in this Statement. Archæological.

## Meteorological Department.

Meteorological observations were recorded during the year 1903–04 at 242 stations, of which 193 were maintained by the Government of India. Of these latter, seven were first-class observatories and 41 second-class, the remaining 145 belonging to class 3, in which less frequent observations are taken. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms and earthquakes. Daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings, are issued. Meteorological Department.

The forecast of the probable rainfall for the monsoon of 1903, issued in June of that year, was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The

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forecast predicted a monsoon of at least normal strength, and probably somewhat above it, with some delay in the early part of the season. The general character of the season proved to be in fair accordance with this forecast. The rainfall during the monsoon period, June to October, was between 10 and 20 per cent. in excess of the normal in Assam, the United Provinces, Berar, and Madras; and, approximately normal, within a variation of 10 per cent. above or below, in the other provinces, with the exceptions of Chota Nagpur, Behar, and Baluchistan, where the deficiencies amounted to 13, 21, and 36 per cent respectively.

The forecast of the winter rains, from December 1903 to February 1904, predicted that they would be generally deficient and late in their commencement, and this also was borne out by the result.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings, three of them on the "brief" system. On the western side of India warnings were sent to 24 ports, to seven of them on the "extended" system. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 847 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients, with few exceptions, to have been timely and satisfactory.

Rainfall.

The average rainfall and the actual rainfall of the three years 1901 to 1903, in the regions into which India has been divided, were as follows:—

| Meteorological Division. | Area, Square Miles. | Number of Stations. | Normal Rainfall. | Actual Rainfall. | | |
|---|---|---|---|---|---|---|
| | | | | 1901. | 1902. | 1903. |
| | | | *Inches.* | *Inches.* | *Inches.* | *Inches.* |
| Punjab Plains | 120,000 | 29 | 21·28 | 18·08 | 15·92 | 20·04 |
| United Provinces of Agra and Oudh. | 83,500 | 44 | 39·16 | 32·40 | 33·17 | 41·81 |
| Rajputana, East | 67,000 | 29 | 23·11 | 14·78 | 19·73 | 21·45 |
| Rajputana, West | 58,000 | 10 | | 5·76 | 7·62 | |
| Central India States | 91,000 | 25 | 42·90 | 41·50 | 36·87 | 39·60 |
| Behar | 30,000 | 15 | 45·20 | 38·77 | 44·03 | 32·88 |
| Western Bengal | 38,000 | 14 | 53·70 | 47·82 | 47·60 | 47·27 |
| Lower Bengal | 54,000 | 28 | 65·73 | 65·82 | 70·51 | 60·92 |
| Assam and Cachar | 61,000 | 17 | 95·10 | 89·36 | 106·27 | 94·60 |
| Orissa and Northern Circars | 27,000 | 32 | 51·84 | 46·23 | 49·65 | 59·58 |
| Central Provinces, South | 61,000 | 19 | 52·46 | 53·38 | 35·51 | 55·58 |
| Berar and Khandesh | 43,000 | 13 | 34·93 | 34·47 | 29·85 | 39·05 |
| Gujarat | 54,500 | 13 | 32·80 | 16·00 | 29·92 | 29·64 |
| Sind and Cutch | 68,000 | 10 | 9·04 | 2·70 | 9·25 | 6·37 |
| North Deccan | 48,000 | 13 | 30·78 | 30·52 | 32·60 | 30·33 |
| Konkan and Ghâts | 16,000 | 11 | 134·46 | 139·09 | 134·78 | 140·47 |
| Malabar and Ghâts | 18,000 | 8 | 114·93 | 119·77 | 124·76 | 127·01 |
| Hyderabad | 74,000 | 17 | 32·91 | 32·17 | 28·26 | 48·37 |
| Mysore and Bellary | 58,000 | 18 | 29·16 | 28·41 | 30·43 | 44·40 |
| Carnatic | 72,000 | 36 | 36·77 | 39·13 | 47·75 | 49·80 |
| Arakan | 11,000 | 6 | 154·05 | 150·62 | 156·44 | 148·48 |
| Pegu | 32,500 | 7 | 78·02 | 73·13 | 66·43 | 79·08 |
| Tenasserim | 10,500 | 4 | 173·34 | 175·15 | 151·11 | 165·94 |
| Upper Burma | ? | 13 | 38·16 | 38·30 | 36·85 | 34·21 |

Over the whole of India, excluding Burma, the rainfall of 1903 was 1·94 inches above the normal, averaging about 43 inches.

# CHAPTER VII.

## LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

The subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the Finance and Revenue Accounts for the financial year 1903–04.

DETAILS of LAND REVENUE and EXPENDITURE.

| | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Ordinary Land Revenue - | 88,933 | 2,643,671 | 4,262,129 | 1,563,260 | 114,946 | 1,395,109 | 554,905 | 517,640 | 328,738 | 3,847,440 | 2,655,281 | 17,972,052 |
| Recovery of Survey and Settlement Charges. | — | 14,715 | — | — | — | — | — | — | — | — | — | 14,715 |
| Sale of Proprietary Right of Government in Land. | 17 | 356 | 1,706 | 322 | — | — | — | — | 22 | — | — | 2,423 |
| Assessment of alienated lands, less quit-rents. | — | 5,834 | — | 14,363 | 269 | — | — | — | — | — | 611,448 | 631,914 |
| Sale of Waste Lands and Redemption of Land Revenue. | 97 | 5,581 | 145 | 52,587 | — | 1,316 | 1 | — | 408 | 1,230 | — | 61,365 |
| Capitation Tax, or House Tax levied in lieu. | 412 | 464 | — | — | — | 642,689 | — | — | — | — | — | 643,595 |
| Receipts for the Improvement of Government Estates. | — | 45,989 | — | — | — | — | — | — | — | — | — | 45,989 |
| Fisheries and other Receipts classed as Miscellaneous. | 8,679 | 16,928 | 47,420 | 46,233 | 6,775 | 310,464 | 4,178 | 4,371 | 33,700 | 193,280 | 27,446 | 699,474 |
| Total Gross Revenue - | 98,168 | 2,733,538 | 4,311,400 | 1,676,765 | 121,990 | 2,349,578 | 559,084 | 522,011 | 362,868 | 4,041,950 | 3,294,175 | 20,071,527 |
| *Deduct* portion credited to Public Works for irrigation. | — | — | 94,224 | 121,286 | 3,682 | 917 | — | — | — | 493,093 | 123,937 | 837,139 |
| Total credited to Land Revenue for 1903–04. | 98,168 | 2,733,538 | 4,217,176 | 1,555,479 | 118,308 | 2,348,661 | 559,084 | 522,011 | 362,868 | 3,548,857 | 3,170,238 | 19,234,388 |
| Total for 1902–03 - | 549,695 | 2,743,303 | 4,185,098 | 1,434,998 | 111,416 | 2,224,650 | 527,425 | * | 430,538 | 3,577,444 | 2,652,278 | 18,436,845 |
| EXPENDITURE. | | | | | | | | | | | | |
| District Administration | 37,685 | 211,073 | 247,497 | 122,714 | 20,710 | 155,837 | 65,025 | 32,283 | 37,586 | 280,441 | 197,006 | 1,387,857 |
| Survey and Settlement - | 9,787 | 59,610 | 28,537 | 48,150 | 13,499 | 41,594 | 13,877 | 304 | 7,895 | 57,795 | 8,523 | 295,571 |
| Land Records and Agriculture. | 9,385 | 6,735 | 238,561 | 106,039 | 9,216 | 47,059 | 45,247 | 1,079 | 15,047 | 125,161 | 164,589 | 768,118 |
| Charges directly connected with the collection of Land Revenue. | 979 | 42,869 | 17,677 | 1,256 | 1,687 | 135,145 | 2,608 | 57,035 | 8,448 | 244,404 | 84,822 | 596,930 |
| Total Charges in India. | 37,836 | 320,287 | 532,272 | 278,159 | 51,112 | 379,635 | 126,757 | 90,701 | 68,076 | 707,801 | 454,940 | 3,048,476 |
| Charges in England - - - - - - - - - - - - - - | | | | | | | | | | | | 408 |
| Total Charges, 1903–04 - - - - - - - - - - - - - £ | | | | | | | | | | | | 3,048,884 |

* Included in India (General).

The chief source of revenue in India has from ancient times been a share of the produce of the land. Nearly two-thirds of the total population

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returned some form of agriculture as their principal means of subsistence at the last census. The administration of the land revenue is, therefore, even more important from a social and political than it is from a financial point of view; and a proper treatment of the subject involves not only an account of the revenue collections but also some notice of the relations between landlord and tenant, as well as between the Government and the revenue payer, and of changes in ownership or occupancy of the land.

### REVENUE SURVEYS AND SETTLEMENTS, &c.

Indian revenue settlements are broadly classified as follows. In the first place there are permanent settlements, by which the demand of the State has been fixed and made unalterable for ever; and, secondly, there are temporary settlements, under which the State demand is revised at recurring periods of greater or less duration. The permanently settled districts cover the greater part of Bengal, parts of the United Provinces and Madras, and a few other isolated tracts. The temporarily settled tracts fall into two broad divisions; Zamindari (in some provinces called Malguzari or Talukdari), where the landlord, or proprietary group, pays the land revenue to the State, whether the land is cultivated by the revenue payers themselves or by means of rent-paying tenants; and Ryotwari, where the cultivator as a general rule pays direct to the State. In both these tracts the rates of land revenue are settled for periods varying, according to the province, between ten and thirty years, the latter figure prevailing in all the larger provinces with the exception of the Punjab and the Central Provinces, where settlements are usually made for twenty years. In the Zamindari areas, where estates range from hundreds to many thousands of acres, the periodical assessment is a share, generally rather less than one-half, of the ascertained or assessed rental enjoyed by the proprietors; in the Ryotwari tracts, where the estates are small and cultivated by peasant proprietors, the periodical assessment is imposed on the cultivated area at rates per acre fixed with reference to the productiveness of the land, and varying in different provinces from one-fifth to one twenty-fifth part of the gross value of the produce. The United Provinces of Agra and Oudh, the Punjab, the Central Provinces, and Orissa mainly contain estates held by proprietary communities or large proprietors; while in Bombay, Burma, Assam and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of the surveyed areas in which the various tenures prevail, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including mortgage with possession, and excluding inheritances and temporary transfers) during the agricultural year 1902–03. The figures are in thousands of acres :—

| — | Ryotwari (peasant proprietors). | Zamindari (larger proprietors) and Village Communities. | | Total. | Transfers. |
|---|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | | |
| Upper Burma | 49,035 | — | — | 49,035 | 62 |
| Lower Burma | 54,981 | — | — | 54,981 | 482 |
| Assam | 26,056 | 3,909 | 1,370 | 31,335 | 48 |
| Bengal | — | 81,984 | 15,566 | 97,550 | * |
| United Provinces—Agra | — | 6,160 | 46,437 | 52,597 | 1,002 |
| ,, ,, Oudh | — | 1,156 | 14,182 | 15,338 | 468 |
| Punjab | — | — | 62,222 | 62,222 | 475 |
| North-West Frontier Province | — | — | 8,498 | 8,498 | 142 |
| Sind | 30,076 | — | — | 30,076 | 125 |
| Bombay | 44,691 | — | 3,890 | 48,574 | 833 |
| Central Provinces | 1,612 | — | 42,878 | 44,490 | 811 |
| Berar | 11,333 | — | — | 11,333 | 170 |
| Madras | 60,773 | 29,665 | — | 90,438 | 457 |

* Figures not available.

The Ryotwari area may be said, therefore, to embrace more than 278 million acres, the Zamindari area under permanent settlement

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123 millions, and under temporary settlement 195 millions. In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the Agra province the incidence is about Re. $1\frac{5}{8}$ per acre of cultivated land, in the similar tracts of Madras it is considerably lower than this. In the Zamindari area under temporary settlement the land revenue represents usually something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. The average incidence of the land revenue per acre of fully assessed cultivated land in the temporarily settled tracts, as given in the returns for 1902–03, is approximately Re. $1\frac{7}{8}$ in the United Provinces, rather over Re. 1 in the Punjab, Re. $1\frac{1}{8}$ in Berar, Rs. $2\frac{1}{3}$ in Lower Burma, Re. $1\frac{1}{4}$ in Upper Burma, Rs. $2\frac{1}{2}$ in Assam, Rs. $2\frac{3}{8}$ in Sind, Re. $1\frac{3}{8}$ in Bombay, 9 annas in the Central Provinces, Rs. $2\frac{1}{3}$ in Madras, and Re. $1\frac{1}{2}$ in Bengal. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall or means of irrigation, and according to the facilities for carrying produce to markets or to the seaboard. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

Bengal.

Survey and settlement operations were in progress during the year ending in September 1903 in sixteen districts of Bengal. The total area included in these operations was 17,244 square miles, contained in 17,348 villages. The area cadastrally surveyed was 3,757 square miles; preliminary records were written for 4,039 villages; records were attested for 3,213 villages, and finally published in 1,872 villages. The rents of nearly 89,000 tenants were settled. The total area of which a record of rights had been completed in settlements under the control of the Director of Land Records was 32,482 square miles. The cadastral survey and settlement operations on the permanently settled lands of North Behar had been finished. The Champaran and Muzaffarpur reports were noticed in last year's issue of this Statement. The reports for Saran and Darbhanga have since been received. These also contain an immense amount of information, which it would be idle to attempt to summarise, as to crops, incidence of rent, the pressure of the population on the soil, and the average income of the petty proprietor, the tenant cultivator, and the agricultural labourer. In both districts, but especially in Saran, the population is very dense, and the agricultural labourer class is very near the starvation line in bad years, though the pure cultivator class, which forms about three-fifths of the population, is in a moderate condition of comfort. It is recorded that in Saran the incidence of the Government revenue per cultivated acre is just over 14 annas, that of rent being nearly Rs. $4\frac{1}{4}$. In both districts the survey operations have been of great advantage to the progress and prosperity of the district, hitherto hampered by the uncertainty of the rental demand.

The settlement of rights in the Backerganj district, and in Ranchi, North Bhagalpur, and North Monghyr made good progress, and similar work was in progress in private estates in Purnea, Gaya, Singhbhum, and the Sonthal Parganas, and in other districts. Settlements of land revenue were also being made in various temporarily settled tracts and Government estates.

United Provinces.

In the United Provinces of Agra and Oudh the cadastral surveys, which are carried out by the village accountants (patwaris), were brought to a close in the Azamgarh, Mainpuri, and Jalaun districts. The settlement officer of Azamgarh reported that the maps were very good and the records as good as could be expected. It is reported that there was a general improvement in the maintenance of land records, owing to the strengthening of the inspecting staff. The regular revision settlements in Oudh have now been completed, with the formal closing of the settlement of the Gonda district. This revision began in 1889 and continued without remission until the end of the

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year under report. In the Agra Province the settlements of the Shahjahanpur and Meerut districts were formally closed. The report on the Meerut settlement, as was stated last year, showed that the assessment was increased by 34·4 per cent. In Shahjahanpur, where settlement was undertaken for the express purpose of re-adjusting the existing demand rather than of obtaining any enhancement, the new demand was very slightly less than the old. Operations were advanced towards completion in most of the districts where they had been begun in previous years; they were still in hand in three districts, and about to be commenced in a fourth. Fresh assessments were sanctioned for several subdivisions, the rate of increase varying from 3 per cent. to 11 per cent. The delicate task of introducing the new system of fluctuating assessments into the Bundelkhand districts remained to be undertaken.

The year ending in September 1903 was the first revenue year in which the new Tenancy Act was in force throughout. There is a difficulty in gauging the effect of the Act, owing to the want of a suitable standard of comparison. It is observed, however, that there was an increase of 14 per cent. in the number of suits for arrears of rent in the Agra districts, and that this has been accompanied by a similar increase in the number of applications for ejectment on account of an unsatisfied decree for arrears of rent. This is due to the new Act having extended the procedure to tenants-at-will. The actual number of ejectments was small—only 7,747 in the year—but the working of the Act in this respect will require to be carefully watched. The object of the Act was to induce landlords to give their cultivators some fixity of tenure; if they did not choose that their tenants should acquire any rights, they were at least to grant them long-term leases. But at present, owing perhaps partly to the long-standing prejudice of the tenant against leases, the number of seven year leases has been small, and amounted to 8,517 only in 1902–03, of which 5,093 were in the Meerut division, where the provisions of the Act appear to be best understood. The area of holdings in the Agra Province is given as 27·7 millions of acres, of which 8·9 millions were held by tenants with occupancy rights, 10·9 millions by ordinary tenants, and one million by ex-proprietary tenants or other tenants with privileged rights, while the remainder was rent free or nominally rented. In Oudh, the holdings amounted to 9·6 millions of acres, of which all but 2 millions were held by ordinary tenants. The number of transfers of proprietary interests in land was higher than the figures of the preceding year, but the increase is to a large extent accounted for by the rise of nearly 19,000 in the number of succession cases. The following table shows the number of sales of revenue-paying land by private transfer, and of mortgages, for recent years :—

| | Sales of Revenue Paying Land. | | Mortgages. | |
|---|---|---|---|---|
| | Agra. | Oudh. | Agra. | Oudh. |
| 1894–95 | 17,052 | 2,717 | 8,256 | 7,144 |
| 1896–97 | 22,599 | 3,487 | 13,388 | 8,205 |
| 1898–99 | 18,935 | 4,944 | 8,262 | 10,374 |
| 1900–01 | 21,657 | 4,797 | 9,778 | 9,328 |
| 1901–02 | 20,567 | 4,353 | 9,177 | 9,029 |
| 1902–03 | 20,108 | 4,975 | 9,488 | 14,793 |

The most important event of the year was the introduction into Bundelkhand of special laws for relieving proprietors of their debts and restricting their powers of transfer.

PUNJAB.

In the Punjab, settlements were completed in Muzaffargarh and two other tracts, and were in progress in the Attock, Jhang, and Gujranwala districts. The chief feature in the Muzaffargarh settlement was the introduction over a large area of the system of fluctuating assessment. One of the most prominent points in Punjab land revenue administration in recent years has been the extension of fluctuating in place of fixed forms of assessment for irrigated lands. Under these systems, only matured crops are charged with revenue; their popularity is growing, but some difficulties are found in working them, and it is as yet too soon to offer any final opinion as to their value.

LAND REVENUE.

By the end of the year ending in September 1903, the Punjab Alienation of Land Act had been in force for more than two years. The Act appears to have attained its main object of placing material checks on alienations of land, without unduly impairing agricultural credit, and without causing any substantial depreciation of the value of land, while it has had a highly beneficial tendency to curb habits of profuse extravagance among zamindars. The figures in regard to mortgages go to prove that forms of mortgage permitted by the Act are coming into use, and that the mortgage value of land has risen, as compared with 1901–02. As to the effect on the sale price of land, it is too early to draw any satisfactory conclusions. On the whole, it is considered that the hopes and expectations entertained when the Act was passed have been realised in a highly satisfactory measure.

North-West Frontier Province.

In the Frontier Province, settlements were already in progress, or were begun during the year, in all districts except Peshawur. In the Hazara district the work was delayed owing to the mountainous character of the country, but some of the work in Kohat and Dera Ismail Khan was completed. In the latter, as in some other parts of the province, the fluctuating system has been introduced. Owing to the growing tendency of the land to pass into the possession of the money-lending classes, it was decided to apply the Punjab Alienation of Land Act, with certain modifications, to the Bannu, Hazara, and Dera Ismail Khan districts.

Burma.

In Burma, a party of the Survey of India was employed on cadastral survey in the Shwebo and Pakokku districts. The latter district has not before been under cadastral survey, and the amount of work to be done is large. Special surveys outside these areas were also done by provincial agency, and extra parties were employed on revision survey in Ma-ubin and Mandalay. Settlement operations were in progress in twelve districts. Four settlements were sanctioned and new rates were applied to three-quarters of a million acres of cultivated land. These were (1) the original settlement in Myaungmya and Pyapon, by which the revenue demand was doubled; (2) the revision settlement of Akyab, which resulted in an increase of 33 per cent.; and (3) and (4) the summary settlements in Lower and Upper Chindwin, which yielded increases of 30 per cent. and 5 per cent. respectively. The area under supplementary survey (42,000 square miles) was much higher than in 1902-03, owing to the inclusion of the Magwe and Lower Chindwin districts, where settlement had been completed.

The transfer of cultivated lands to the hands of non-agriculturists and the increase in the areas sublet continued. Legislative measures to restrict the alienation of land have recently been in contemplation, but the question was still under consideration. The area let at full rents is given as 2,204,600 acres, and the average rent as about Rs. 9 per acre. Sales of land increased, but the area under mortgage declined, owing to redemptions and to a satisfactory fall of 25 per cent. in the number of new mortgages.

Central Provinces.

The survey work carried out in the Central Provinces and Berar during the year ending in September 1903 was small, and does not require notice. Settlement operations were in progress in the Sambalpur, Chanda, and Mandla districts, in the zamindaris of the Raipur district, and in the ryotwari villages of Nimar, Betul, and Chhindwara. The work was completed in the Raipur zamindaris, and was very nearly concluded in Nimar, Betul, and Chhindwara. Operations had in the preceding year been discontinued in most of the Raipur district, other than the zemindaris, owing to repeated crop failures; but sanction has been given for their resumption.

The returns of cultivating occupancy in the Central Provinces show that $5\frac{1}{8}$ millions of acres were held by the proprietors, while $16\frac{1}{4}$ millions were held by tenants, at an average rent of $11\frac{3}{4}$ annas per acre; $2\frac{1}{3}$ millions of this were held by absolute occupancy tenants, at an average rate of Re. 1 per acre, settled for a period of 30 years; and more than 7 millions by occupancy tenants. The above figures leave out of account the 600,000 acres held under the ryotwari system in the Central Provinces, and the whole area of Berar, which is under the ryotwari system. The area occupied for cultivation in the Central Provinces was the largest that has been recorded for many years. The prosperity of the land-holding classes was also indicated by the increase of the agricultural livestock, by the comparatively mild

LAND REVENUE.

pressure that was needed to secure a full collection of the revenue, and by the ease with which the tenants satisfied the demands of their landlords, as shown by a fall in the number of rent-law, and ejectment suits.

Assam.

In Assam, resettlement operations in Sibsagar and Kamrup continued without interruption during 1903–04, and progress was achieved which is very satisfactory considering that the system followed is new to the province. A group of villages was dealt with in each district, and in both cases the settlement officers proposed a small reduction of the revenue, as well as redistribution. The settlement of land for ordinary cultivation showed a satisfactory advance in the Assam Valley and in Cachar, but did not make much progress during the year in Sylhet. A small portion of the land revenue is obtained from permanently settled estates in Sylhet and Goalpara. Of the remainder, some is obtained under annual re-settlements, some by periodical revisions. The permanently settled area is rather less than four million acres, including a large proportion of waste, and it yielded a revenue of £25,100; the area of land paying full revenue rates under periodical or annual settlement was 2,593,000 acres, and it paid about Rs. 2 per acre.

Madras.

The Madras Survey Department was engaged during the year ending in June 1904 in resurvey prior to resettlement in the Kurnool, Nellore, and Salem districts, and the out-turn of work, together with original cadastral surveys of proprietary lands, amounted to 2,449 square miles. Five settlement parties were at work, in connection with the initial settlement of the districts of Malabar and South Canara, and the resettlements of Kistna and Salem. The new rates of assessment were introduced into some subdivisions of South Canara. The land revenue demand in the districts settled and resettled since the commencement of the operations was, in the agricultural year 1903–04, 28 per cent. in excess of the demand prior to the settlements; and the total expenditure of the Settlement Department up to June 1904 was £945,200. In the ryotwari lands the extent of "dry" holdings increased by one per cent., and that of "wet" holdings by rather less than one half per cent.; and the total occupied area under crops amounted to 19½ million acres, or 84 per cent. of the total holdings, against 83½ per cent. in the previous year.

Bombay.

An establishment of six permanent surveyors was sanctioned for each of the three divisions of the Bombay Presidency proper, and a good amount of survey work was done by them and, in Sind, by the usual five survey parties. Revised rates of settlement were announced during the year in subdivisions of Surat and Khandesh, and an original settlement was introduced into 188 villages in Khandesh. In Sind, revised rates for the Mehar taluka of the Larkhana district were sanctioned. There was an increase of about 300,000 acres in the total area under cultivation in the Presidency, owing chiefly to a good inundation in Sind. The good rainfall of the year, however, also caused a slight increase in the occupied area in nearly all districts of the Presidency proper, except in the Southern division. So far as any change can be noted in a single year in the relations between landlord and tenant, the good season of 1903–04 seems to have produced a slight improvement. A decrease in the number of mortgages seems to be directly connected with the improved position of the revenue-paying classes.

## Collection of the Revenue.

Land Revenue.

The fluctuations of the land revenue in past years may be seen in the following table, which does not include that part of the land revenue receipts which is credited to "Irrigation":—

| | Land Revenue Receipts excluding Receipts due to Irrigation. | Variation (Average of Five Years, 1881-85=100). |
|---|---|---|
| | £ | |
| 1861-65 (five years' average) | 13,287,000 | 90·1 |
| 1866-70 " " | 13,327,000 | 90·4 |
| 1871-75 " " | 13,977,000 | 94·8 |
| 1876-80 " " (includes the great famine of South India). | 14,076,000 | 95·4 |
| 1881-85 " " | 14,748,000 | 100·0 |
| 1886-90 " " | 15,445,000 | 104·7 |
| 1891-95 " " | 16,522,000 | 112·0 |
| 1895-96 (single year) | 17,467,000 | 118·4 |
| 1896-97 " (famine year) | 15,983,000 | 108·4 |
| 1897-98 " | 17,122,000 | 116·1 |
| 1898-99 " | 18,306,000 | 124·1 |
| 1899-1900 " (famine year) | 17,205,000 | 116·7 |
| 1900-01 " | 17,503,000 | 118·7 |
| 1901-02 " | 18,288,000 | 124·0 |
| 1902-03 " | 18,437,000 | 125·0 |
| 1903-04 " | 19,234,000 | 130·4 |

The total advances made by Government to cultivators in the financial year 1903-04 are given as follows in the Accounts of the Government of India:—

| | By the Government of India. | By provincial Governments. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Advances for improvement of land | 5,570 | 101,123 | 106,693 |
| " relief of agriculturists and similar purposes. | 4,842 | 305,479 | 310,321 |
| Total | 10,412 | 406,602 | 417,014 |

The details for the agricultural year will be found below under each province.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The figures of the revenue demand for each of the last three years are given as follows:— Bengal.

| | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Permanently settled estates | 2,155,143 | 2,155,269 | 2,154,139 |
| Temporarily settled estates | 235,755 | 239,846 | 237,499 |
| Estates under the direct management of Government. | 281,771 | 288,837 | 306,450 |
| Total | 2,672,669 | 2,683,952 | 2,698,088 |

The total amount collected during the year under report, including collection of arrears, was approximately equal to the current demand, rather less than 98 per cent. of the current year's demand being realised in the year. This percentage is again very satisfactory, the current year's revenue

LAND REVENUE.

being collected with great success; and the balance outstanding, of the current and arrear demand, was only £59,800. The number of estates which became liable to sale for non-payment of Government dues was 13,764, and of these 1,245, or 9 per cent., were sold, against 1,279 in the previous year. Under the Public Demands Recovery Act, 173,200 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 151,100 in the previous year; attached property was sold in 6,427 cases, and 69 defaulters were imprisoned. Defaulters may deposit the amount due, with a penalty, within 30 days after the sale of the property under the certificate system, and thus have the sale set aside, and recourse is frequently had to this procedure, some 1,400 cases being mentioned in which sales were set aside during the year. Advances to agriculturists under the Loans Acts amounted to £24,100, the larger part under the Agriculturists' Loans Act. In the six years, 1897–98 to 1903–04, the total of the advances made amounts to £116,300, and of this, £97,600 has been repaid and £400 remitted. Very little of the interest which had accrued was outstanding. The difference between the interest calculated at 3½ per cent., the rate at which the Government can borrow, and 6¼ per cent., the rate charged to borrowers, exceeded by £2,700 the amount of the remissions.

The gross rental of the 43 districts in which the Bengal Cess Act was in force was returned for road cess purposes at £11,894,700 for the year 1903–04, which is £537,700 above the assessment of the previous year, as compared with £8,745,000 for 40 districts in 1873. The three added districts represent a rental of £354,800. The current demand of land revenue in these districts amounted to £2,665,500, or about 22½ per cent. of the rental valuation given above.

United Provinces.

The latest report on land revenue affairs in the United Provinces relates to the year ending 30th September 1903. The monsoon of 1902 was late, and showed some fluctuations, but the season was on the whole favourable to agriculture. The cultivated area was nearly half a million acres in excess of that of the previous year—the largest recorded. The demand and collections of land revenue in the last three years are given as follows:—

| — | | 1900-01. | 1901-02. | 1902-03. |
|---|---|---|---|---|
| | | £ | £ | £ |
| Land revenue, current and arrear | demand - - | 4,284,657 | 4,280,315 | 4,313,388 |
| | collections - | 4,221,819 | 4,174,487 | 4,220,004 |

The arrears included in the demand of 1902–03 were very small, and had, in fact, been to a large extent suspended. Deducting such suspensions, as well as other items which were not required to be collected, the receipts were practically equal to the demand thus rectified. In the next year the large reductions of revenue in Bundelkhand, granted on account of deterioration in 1901, and now shown as suspensions and included in the demand in the table above, were to be treated as remissions, and excluded. The other headings of revenue dealt with in the Land Revenue report, but not strictly classed as land revenue, are the occupiers' rate (receipts, £488,400) and the owners' rate (receipts, £18,600), which constitute payments for irrigation, as well as cesses (receipts, £701,700), &c. Of coercive processes for recovery of sums due to Government, there were 26,600 writs, 3,852 arrests, 4,495 cases of attachment of movables, 147 of attachment of estates, and one case only of sale of immovable property. These figures were much below those of the preceding year, the collection of revenue being carried out generally without much difficulty. Of the 227 estates under attachment, 165 were released during the year. The amount of the loans sanctioned under the Land Improvement Loans Act and the Agriculturists' Loans Act was £12,800.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1903. The agricultural conditions of the year were fairly good, except in some areas in the south and east of the province, and on the whole the harvests were considerably better than they were in the previous

year. The fixed land revenue demand for the year amounted to £1,377,200, of which £1,292,500, or 93·8 per cent., was collected, besides £28,800 on account of arrears. Collections were made promptly and without much difficulty in most parts, though in the Hissar district, owing to an unfavourable season, only 34 per cent. of the demand was collected. The total amount of revenue which it was necessary to suspend was £81,000, or less than half the total suspended in 1901–02. Remissions amounted to £7,200. As was stated last year, large remissions had been made under the provisions of the Budget of March 1903. There remained at the end of the year under report a recoverable balance of £165,700 under suspension, for the most part in the Delhi division. The "fluctuating" system of land revenue, applied for the most part either to canal-irrigated lands or to lands subject to floods, is reported to be increasing in popularity, and it is being gradually extended. The revenue under this heading amounted to £191,600 in 1902–03. There was a further amount of £104,600 classed as miscellaneous land revenue. The number of writs of demand issued against defaulters fell to 20,400, but there was a rise in the number of warrants, which was 1,500; movables were sold in 3,899 cases, against 3,282 in the previous year; but cases in which direct management of the estate was resorted to fell from 10 to 3; imprisonments numbered 11. Attention is being given to the improvement of this branch of the work, which appears to need reform, in the direction of less severity. The advances during the year under the Agriculturists' Loans Act amounted to £36,000, and £24,000 was advanced under the Land Improvements Act.

LAND REVENUE.

The report for the North West Frontier Province covers the same period as that for the Punjab. The season, as in the parent province, was, on the whole, favourable, and the yield of irrigated crops was good and that of unirrigated crops nearly up to the average. The fixed land revenue demand was £106,800, of which 98 per cent. was collected, besides a small amount due for arrears. Fluctuating and miscellaneous land revenue between them contributed £11,600. Coercive processes included 3,261 writs of demand, 1,254 warrants, and 166 sales of movables. The agricultural advances outstanding at the end of the year amounted to £6,900.

North-West Frontier Province.

The meteorological conditions of the year ending in June 1904 were good in Burma, in spite of the lightness of the early rains, and the harvest was an undoubted success. The gross demand of current year's revenue for the whole province under the various heads of revenue under review is shown in the marginal table; that of 1903–04 is 5 per cent. higher than that of 1902–03. Satisfactory harvests, together with the normal growth of the cultivated area, which now stands at about eight million acres in Lower Burma, and the substitution of land revenue for household tax in some newly settled areas of Upper Burma, resulted in an increase of the land revenue demand by 10 per cent., coupled with a decrease in the amount of remissions. The collections of current land revenue amounted to £1,433,900, which is largely in excess of the figure for 1902–03, for the reasons given above. There was some diminution in the actual yield from the household tax, or *thathameda*, owing to the substitution of direct land assessment in several districts. The number of persons assessed to capitation tax rose to 1,179,000, and the yield showed a corresponding increase. The river and other fisheries are a considerable source of revenue in both the upper and the lower parts of the province; measures have been taken for the resuscitation of the sea fishing industry by the grant of advances. The heading "other sources" includes receipts from petroleum royalties, from ruby mines, from water rate, &c. The amount of agricultural advances was £24,100.

Burma.

| — | 1902–03. | 1903–04. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,322,192 | 1,454,381 |
| Household tax - | 351,161 | 309,412 |
| Fisheries - - | 189,256 | 193,859 |
| Capitation tax - | 320,583 | 327,577 |
| Other sources - | 116,231 | 134,918 |
| TOTAL - - | 2,299,423 | 2,420,147 |

The latest land revenue report from the Central Provinces is for the year ending in September 1903. The monsoon of 1902 began late and was defective, especially in the southern part of the province, where the rice crop suffered very severely. Elsewhere, however, the autumn crops were moderately good; and the wheat crop in the spring in the northern districts

Central Provinces.

LAND REVENUE.

was exceptionally large. The demand on account of the land revenue of the year under the general system of the province stood at £561,300, reduced by large suspensions and remissions to £450,900, to which may be added £20,100 for arrears outstanding. Collections on account of the year's revenue were almost exactly equal to the amount demanded. The remissions mentioned above amounted to £60,500, and the suspensions, which have for the most part been subsequently turned into remissions, to £44,300. There was a further demand on account of land revenue not on the roll and miscellaneous revenue, current and arrear, amounting in all to £29,200; and the receipts under these heads came to £23,800. Coercive processes showed a general decline; 338 defaulters were arrested and only 8 imprisoned; 1,713 attachments and 197 sales of movable property were effected; and the number of estates sold numbered only 4. Advances under the Land Improvements Act and the Agriculturists' Loans Act amounted to £109,200 during the year. The amount of these loans outstanding at the end of September 1902 was £293,300, of which £125,700 bore no interest.

Berar.

The latest report available respecting land revenue administration in Berar relates to the year ending on the 31st July 1903. The rainfall was below the average, and was not well distributed. The out-turn of crops did not rise above three-fourths of the normal, and jowar, or large millet, which covers 43 per cent. of the crop area and forms the staple food of the people, gave a low yield compared with the good crop of the preceding year. Prices, however, were lower. The land revenue demand for the year, including cesses, amounted to £512,800, of which practically the whole was collected during the year. The arrears outstanding were inconsiderable. No defaulter was imprisoned for non-payment of revenue; the area of land sold on this account was 16,200 acres; personal property was sold in 19 cases. The amounts advanced under the Land Improvements Act and the Agriculturists' Loans Act were only petty.

Assam.

The rainfall in Assam during 1903–04 was about equal to the average, and though its distribution was peculiar the result was, on the whole, favourable, the produce of the year being estimated as 14 per cent. above the normal. The current land revenue demand rose from £389,600 to £399,200, and the collections from £367,700 to £374,300, in spite of the fact that, owing to a revision of the rules relating to instalments, the payment of some of the revenue was deferred. Including arrears, the amount collected was £391,600, and £6,800 was remitted; the percentage borne by these two sums to the total current and arrear demand being 92 per cent. In addition to this there were miscellaneous receipts to the amount of £33,000. The number of sales of land for non-payment of revenue was 536 against 554 in the previous year. On the other hand, sales of movable property increased from 353 to 453. The amount of agricultural loans granted in Assam is insignificant.

Madras.

For the Madras Presidency the latest report available deals with the year ending on the 30th June 1903. The season was generally favourable to agriculture, and the out-turn of all crops, wet or dry, was generally fair, prices showing a material fall. The total demand on account of the year for land revenue, including charges for irrigation, was £4,005,500, besides cesses amounting to £542,800, and the total collections were £4,492,500. The uncollected balances of current dues and of arrears at the end of June 1903 amounted to £70,900, of which more than three-fourths had been collected or written off by the end of November 1903. Of the above land revenue demand, a sum of £332,800 represents land revenue due from permanently settled estates, and £51,100 quit-rents from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. The number of ryotwari (peasant proprietors') villages rose to 23,593, and the area of their holdings was more than 23 millions of acres, the extent under occupation having increased by ·9 per cent. as compared with that of 1901–02, which was also a favourable year. The land revenue demand on this area was £3,072,300, putting aside cesses and certain special charges for water, which together amounted to £616,900. In spite of the fact that the realisations of revenue in the year exceeded those of the preceding year by about £120,000, and that the percentage of collections to demand rose from 97·1 to 98·5, there

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was a considerable reduction in the number of coercive processes employed; but there is still room for further reductions. The number of notices of sale was 200,400, and sale of real property was carried out in 7,756 cases. The area of land so sold was 30,600 acres, against 45,700 acres in the previous year; a considerable proportion of it is of inferior quality, and is bought in by the Government at a nominal price. Advances under the Land Improvements Act and the Agriculturists' Loans Act amounted to £33,900.

Bombay.

In all parts of the Bombay Presidency proper, except Gujarat, the rainfall was both timely and sufficient in the year 1903–04, and in Gujarat, though it was below normal, it was nowhere deficient, and a large out-turn of cotton, fetching high prices, greatly helped to promote agricultural prosperity. In Sind the inundation was a good one. The total demand on account of land revenue, including the demand on account of former years, amounted to £2,888,900, compared with £2,746,700 in the previous year. Collections amounted to £2,630,400, which was better than those of the previous year, both in respect of its proportion to the demand, and also in actual amount, owing chiefly to the good inundation in Sind. The number of occupancies increased slightly in all divisions with the exception of the southern, and stood at 1,529,000. The number of distraints for non-payment of revenue fell from 2,222 to 1,831, showing that less difficulty was found in making the collection than in the previous year. The amount of remissions in the Presidency proper fell from £198,300 to £45,100 in the year ending on the 1st August 1903, and the outstanding balances on account of that year and previous years stood at £206,700, against £543,500 on the 1st August 1902. The agricultural advances made in the Presidency proper had also fallen from £266,700 in 1901–02 to £138,500 in 1902–03, while in Sind the advances increased to £47,900, and the outstanding balances of revenue to £69,500.

## WARDS' ESTATES.

WARDS' ESTATES.

Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been made, to a large extent, with this object. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage them, or of persons declared by the local Government, at their own request, to be disqualified for managing them. Since that year, various provincial Acts have been passed, giving to the Government further powers of putting estates under the control of the Court, without consent of the owners, when the latter are in a special degree unqualified for their proper management. The duty of the Courts is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way.

Bengal.

In Bengal 72 wards' estates and 82 other estates were under the management of the Court of Wards for the whole or part of the year 1903–04, with a total rent and cess income of £554,500. The collection of rents and cesses, including arrears, amounted to rather more than the current demand. With other items, the receipts of the estates amounted to £1,038,100. The disbursements were £918,200, of which £159,100 was for Government revenue and cesses, £38,100 for dues of superior landlords, £53,700, or 9·8 per cent. of the rental, for cost of management, £96,800 for wards' and family expenses, £22,000 for improvements, and £326,600 for investments and payment of debts. The total of the debts stood at £1,148,500, of which £436,200 represents the debts of the Bettiah estate, which is involved to the extent of more than three and a half times the amount of the rent roll. This also includes £376,000 owed by estates taken under management during the year, several of which, notably the estate of Sir S. M. Tagore, were large and deeply involved. The Burdwan Raj was released from management during the preceding year, after being for seventeen years under the control of the Court. The cost of management for this whole period had been 3·3 per cent.

WARDS' ESTATES.

of the total rent and cess demand. The huge property, covering about 4,194 square miles, with a population of rather over 2 millions, had been ably managed, and the expenditure, besides the expenses of the family and improvements to the estate, included the maintenance of a college and schools and a public library, an experimental farm, &c. The estate was handed over with a cash balance of £77,200 and Government securities to the amount of £90,400. None of the estates released during 1903–04 were important.

United Provinces.

The number of estates under the Court of Wards in the United Provinces at the close of the year ending in September 1903 was 180. None of the estates released during the year had any special importance. Some of the estates which came under management were of considerable size, the most deeply indebted being one in the Ghazipur district, which had debts to the amount of about £21,700, with an income of £11,000. The season was on the whole a good one, and current rental collections amounted to 95 per cent. of the demand, while 24 per cent. of the arrears was paid up. The aggregate receipts of all the estates under management for the whole or part of the year was £587,300, and the charges amounted to £596,600, of which £199,100 was for the Government demand, £56,100 was for the education and maintenance of the wards, £12,300 for improvements, and £182,900 for repayment of debts, the cost of management falling at the rate of 9·4 per cent. of the gross income. The Government land revenue, with cesses and rates, actually paid, amounted to 50·6 per cent. of the current rental collections. The total liabilities of all the estates under management, including debts previous and subsequent to assumption of charge, were £3,047,800, of which £1,365,300 had been repaid, while £949,100 had been replaced by more favourable loans. The heavy debt of £353,000 owing by the small Rampur state of Moradabad under a decree for dowry was settled by compromise. Several of the agricultural banks started two years before had died of inanition; with regard to the rest their prospects were not certain; success or failure seems to depend largely on the interest taken by the Court of Wards' staff.

Punjab.

The new Punjab Court of Wards Act came into force in June 1903. At the end of September 1903 the number of estates under the management of the Court was 44. Four estates were brought under management, of which one, the Kot Fateh Khan estate in Rawalpindi, had a cultivated area of 29,000 acres, an income of £5,400, large assets, and small liabilities. This income was only surpassed by three others of the estates under management. One important estate, namely, Guler, is in a hopeless position, and little progress was made in respect of the Sher Shah estate, the prospects of which are more hopeful; but the figures of income for the estates as a whole are considered to have been gratifying, having regard to the agricultural conditions of the year. The gross income was £70,800, besides £8,000 obtained by loans and sale of properties; and the expenditure, excluding investments and repayments of debt, amounted to £42,900. The cost of management was 6 per cent. of the gross income, £8,300 was spent on family and educational charges, and £8,100 on improvements. Three estates were released, the results of their management being said to be satisfactory.

North-West Frontier Province.

There were 44 estates under the Court of Wards in the Frontier Province during the year ending in September 1903, with receipts amounting to £78,800 and a total expenditure of £76,200. Satisfactory work was done in respect of the management of the estates and their clearance from debt. The total liabilities at the end of the year were £107,000, the sum of £13,800 being cleared off as a result of the year's working.

Central Provinces.

In the Central Provinces the policy of relieving the Court of Wards of the management of estates in which it is unsuitable or not advantageous was pursued during the year ending in September 1903, and the result was a decline in the number of estates under management from 122 to 107. Of the latter number, six are, for various reasons, not included in the following statistics. The gross income of the remainder was £74,800, of which £45,900 represented rental collections. The rice crops of 1902 were in many cases poor, but the percentage of collections was fair, and now that large sums have been written off as irrecoverable the arrears of rent are reduced to reasonable dimensions. The expenditure was £83,800, including £28,200

for Government dues. The debts were reduced by a net amount of £2,200, and stood at £111,200. The establishment by which the estates are managed was being revised on an efficient but economical basis; the cost of management was rather less than 14 per cent. of the year's income. WARDS' ESTATES.

Four estates in Madras were released during the agricultural year ended on 30th June 1903, and two taken under management, so that 37 remained under the control of the Court. The most important of the estates released was the Saptur estate in Madura, the current income of which had increased by nearly 60 per cent. during its sixteen years of management, and stood at £5,300, while £7,700 had been expended on irrigation works and £4,200 on other improvements. The season was, on the whole, favourable on most of the estates; 667,100 acres, or 80 per cent. of the total area of all holdings on these estates, were cultivated. The rent collections during 1902-03 on account of the current year amounted to £174,700, or nearly 75 per cent. of the current demand; the demand on account of arrears amounted to £174,900, of which £70,600 was collected during the year, and £25,700 written off as irrecoverable. The cost of management was reduced to 12 per cent. of the ordinary receipts. The balance at the credit of all estates, invested and uninvested, at the end of the year was £435,200; the debts due were £837,300, of which no less than £745,000 was owed by two estates, Karvetnagar and Kalahasti, taken temporarily under management in 1899, under the additional powers given by the Act of that year. The Government demands amounted to £95,600, and education and maintenance of wards and families accounted for £24,700, the total charges, including repayment of debts and investment in Government securities, being given as £302,200. Madras.

In Bombay the estates under Government management during the year 1903-04 were of several kinds, namely, estates under the management of collectors or other guardians, estates in charge of the Talukdari Settlement officer, and encumbered estates in Sind. Outside Gujarat the estates were of small area. The estates of the second category are all in Gujarat; they included 613 estates, of which many had been handed over to the Talukdari Settlement officer's charge in order to enable the talukdars to obtain loans for themselves and their tenants. Their nominal gross revenue was £73,300, of which £61,700 was realised during the year. The improvement of agricultural conditions made possible a large reduction in the amount of agricultural loans, and also the recovery of £20,900 lent by the Government. As the result of the special inquiry made into the condition of the Ahmedabad talukdars, reductions were sanctioned by the Government amounting to 12 per cent. of the revenue fixed at the revision settlement The manager of encumbered estates in Sind had 500 estates in charge. The year's revenue of these estates amounted to £56,600, and the expenditure to £53,300, which included £11,400 spent in reducing debts. Bombay.

# CHAPTER VIII.

## OPIUM REVENUE, AND TAXATION.

### OPIUM.

OPIUM. General.

The opium revenue is partly raised by a monopoly of the production of the drug in Bengal and the United Provinces, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the United Provinces, with the unimportant exception of a small amount of cultivation for local use in the Punjab and Ajmere-Merwara, and on the frontier of Upper Burma; and the area on which cultivation is permissible is calculated each year with a view of obtaining a stated amount of opium, with the proviso that, under present orders, the area under poppy in 1899–1900, namely 627,300 acres, is not to be materially exceeded. The cultivator of opium in the monopoly districts receives a licence, and is granted advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur. This price has been Rs. 6 per seer since 1895. The supply of prepared opium required for consumption in India is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium (known as Malwa opium) is also grown in Baroda and in some of the Native States of Rajputana and Central India. Most of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest (of 140 lbs.) for several years until December 1894, when it was raised to £43⅓. It was reduced to £40 in July 1896, and to £33⅓ in October 1897, and stood at the latter figure during the year under report.

The yield of the opium revenue during recent years has been :—

| —— | 1896-97. | 1897-98. | 1899-1900. | 1900-01. | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|---|---|---|---|
| Opium Receipts :* | £ | £ | £ | £ | £ | £ | £ |
| Auction sales of monopoly opium. | 3,233,568 | 2,660,697 | 3,394,290 | 4,109,249 | 4,150,290 | 3,662,600 | 4,678,371 |
| Duty on Bombay (or Malwa) opium. | 892,189 | 647,092 | 852,792 | 835,117 | 542,683 | 661,033 | 871,383 |
| Cost of opium issued to the Excise Departments, and miscellaneous. | 147,068 | 145,392 | 154,900 | 157,877 | 159,049 | 174,805 | 186,291 |
| Total - - | 4,272,825 | 3,453,181 | 4,401,982 | 5,102,242 | 4,852,022 | 4,498,438 | 5,736,045 |
| Opium expenditure, chiefly in Bengal. | 1,657,795 | 1,592,744 | 1,727,154 | 1,785,875 | 1,608,690 | 1,648,483 | 2,225,744 |
| Net Opium Revenue - £ | 2,615,030 | 1,860,437 | 2,674,828 | 3,316,367 | 3,243,332 | 2,849,955 | 3,510,301 |

* This does not include the license fees, duty, &c., on opium consumed in India, which amounted to £844,126 in 1903-04, as shown below under "Excise."

OPIUM.

Bombay.

The exports of Bombay opium to China averaged 25,500 chests in the ten years ending in March 1901, but had fallen to 17,500 chests in 1901–02 and 19,300 chests in 1902–03. In the year under report, owing partly to a rumoured failure of the China crop, they rose to 25,340 chests; but the rumour proved to be exaggerated, and the shipments have since declined. The main permanent causes of the decline in the exports of Malwa opium to China are said to be the increased production of the cheap Chinese drug, and the low rate of exchange of the dollar as compared with the rise in the sterling value of the rupee. The amount of Malwa opium which entered the Bombay Presidency during the year was 27,500 chests, or 28 per cent. more than in the year 1902–03. The average price for one-year old opium, including export duty, was Rs. 1,223 per chest—about the same as in the preceding year.

Bengal.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop was sown but failed, is shown in the margin. Both in the Behar and the Benares Agencies the season of the year ending with October 1903 was unusually favourable for poppy cultivation, and the general average gross produce per acre was 6·7 seers, compared with an average of 5·2 seers in each of the last seven years. The opium is received and prepared at the Government factories at Patna and Ghazipur, where the out-turn for the year included 5,280 chests of opium for the Excise Department, about 400 lbs. of various opium alkaloids, 1,464 lbs. of medical opium, and 64,700 chests of provision opium for the Chinese market. During the financial year ending in March 1904, 48,000 chests of provision opium were sold in equal proportions from Behar and Benares, and the average price realised per chest was Rs. 1,462. The average cost per chest amounted to Rs. 506. There was a great increase in the price realised in the latter part of the year, and the average price obtained in February 1904 was Rs. 1,765 per chest. The average price during the financial year 1902–03 was about Rs. 1,144½ per chest, compared with Rs. 1,297 and 1,361 respectively, in the two preceding financial years.

| | Acres. |
|---|---|
| 1896-97 - | 581,181 |
| 1897-98 - | 546,671 |
| 1899-1900 - | 627,311 |
| 1901-02 - | 591,837 |
| 1902-03 - | 582,807 |

## SALT.



General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from one-fifth of a rupee (in Burma) to 3¾ rupees (in Bengal) per maund of 82⅔ lbs.; during the year 1903-04 the rate was 2 rupees over the whole of India, excepting Burma, where it was one rupee per maund, the Kohat salt mines, the produce of which paid duty at the rate of Rs. 1½ per maund of 82⅔ lbs., and the mines in the Mandi State, where the rate of duty was 6 annas per maund, the share received by the Government of India being 4 annas per maund. These rates were fixed in March 1903, and show a reduction of 20 per cent. on those previously in force, except in the cases of Burma, where the rate remained the same, and Kohat, where only a small reduction was made. It may be mentioned that in the Budget for 1905–06 a further reduction at the rate of 8 annas per maund, or 25 per cent., in the general rate of salt duty was announced. An exception was again made in respect of Burma, where the rate remains unchanged.

The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and for part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the United Provinces of Agra and Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; and importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption.

SALT. The Salt Revenues and Charges in the year 1903–04 were as follows :—

| PROVINCE. | Price of Government Salt, and Excise on Salt made locally. | Duty on Salt imported from England. | Duty on Salt imported by Sea from other Places. | Miscellaneous. | TOTAL. | Charges. | Net Salt Revenue. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| Northern India - | 1,137,577 | — | — | 9,962 | 1,147,539 | 64,300 | 1,083,239 |
| Burma - - - | 16,785 | 33,341 | 53,098 | — | 103,224 | 1,038 | 102,186 |
| Bengal - - - | 341 | 773,938 | 668,736 | 10,390 | 1,453,405 | 20,487 | 1,432,918 |
| Madras - - - | 1,295,050 | 326 | 720 | 6,291 | 1,302,387 | 126,994 | 1,175,393 |
| Bombay - - - - | 1,197,716 | 1,035 | 967 | 44,192 | 1,243,910 | 118,372 | 1,125,538 |
| TOTAL 1903-04 - | 3,647,469 | 808,640 | 723,521 | 70,835 | 5,250,465 | 331,191 | 4,919,274 |
| TOTAL 1902-03 - | 4,229,656 | 872,951 | 1,001,144 | 80,654 | 6,184,405 | 345,749 | 5,838,656 |

The charges above shown do not include a sum of £200,900 paid under treaties to Native chiefs who have assigned the management of their salt sources to the Government of India.

The rate of salt consumption per head of the population differs widely in the several provinces. If the total of licit consumption is compared with the population, the following results appear :— The consumption in the saliferous tracts of Bengal, including Orissa, was 12·47 lbs. per head; in Behar, 9·03 lbs.; in the rest of Bengal, 11·18 lbs.; in Gujarat, 9·9 lbs.; in the rest of Bombay 10·7 lbs.; in Sind, 7·37 lbs.; in Madras, 16·5 lbs.; in the Central Provinces and Berar, 11·89 lbs.; in the United Provinces, 7·72 lbs.; in the Punjab and North-West Frontier Province, cis-Indus, with Kashmir, 7·56 lbs.; in Central India, 8·63 lbs., and in Rajputana, 7·38 lbs. These figures compare in several instances very favourably with those of 1902–03, and in no case show any important decrease. The rate of consumption in Burma is not accurately known, but is believed to be high.

The consumption of salt and the duty realised during the last 31 years are shown in the table in the margin, which has been taken from the returns of the Director-General of Statistics under the Government of India. It will be observed that the amount of the duty received shows a slight divergence from the figures given above.

| — | Quantity. | Duty. |
|---|---|---|
| | Maunds. | £ |
| 1868–69 to 1872–73(average) | 22,973,000 | 3,835,000 |
| 1873–74 to 1877–78 „ | 24,184,000 | 3,971,000 |
| 1878–79 to 1882–83 „ | 27,761,000 | 4,393,000 |
| 1883–84 to 1887–88 „ | 32,429,000 | 4,141,000 |
| 1888–89 to 1892–93 „ | 33,432,000 | 5,351,000 |
| 1893–94 to 1897–98 „ | 34,211,000 | 5,505,000 |
| 1898–99 - - - | 35,269,000 | 5,719,000 |
| 1899–1900 - - - | 35,058,000 | 5,695,000 |
| 1900–01 - - - | 35,815,000 | 5,837,000 |
| 1901–02 - - - | 35,580,000 | 5,780,000 |
| 1902–03 - - - | 36,671,000 | 5,889,000 |
| 1903–04 - - - | 37,592,000 | 4,918,000 |

Northern India.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab and North-West Frontier Province, part of the United Provinces, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake only 572,000 maunds of salt were produced in 1903–04, owing to the character of the season, compared with 4,744,000 maunds in the previous year. Since the year 1870, when the lake was leased by the Government of India, 117 millions of maunds of salt have been taken from it, and the financial results show a total credit balance of £243,500, without taking into account the large stock of salt in hand. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a

charge of 3 pies for clearance; the sales in 1903–04 amounted to 4,119,000 maunds. In the Mayo mine 2,083,000 maunds of salt were excavated. This salt is sold at 9 pies per maund, apart from the duty, and a charge of 6 pies a maund for delivery to the railway; the price of Didwana salt is also 9 pies; Pachbadra salt is sold at the rate of 1½ anna with a charge of 3 pies for clearance; Kohat salt fetches on the average about 10 pies. The total amount of salt which passed into consumption was 8,113,533 maunds, distributed as follows:— Salt.

| — | 1902–03. | 1903–04. |
|---|---|---|
| | Maunds. | Maunds. |
| Punjab and N.W. Frontier Province, cis-Indus, including Native States and Kashmir (chiefly rock salt). | 2,591,498 | 2,683,226 |
| Ditto trans Indus (chiefly Kohat salt) | 325,453 | 381,274 |
| United Provinces (chiefly Sambhar salt) | 3,269,782 | 3,269,650 |
| Behar | 153,126 | 168,101 |
| Central Provinces | 84,567 | 106,270 |
| Rajputana | 811,104 | 868,899 |
| Central India | 494,292 | 539,003 |
| Other places, including Afghanistan | 91,088 | 97,110 |
| TOTAL | 7,819,675 | 8,113,533 |

The salt consumed in Bengal comes from abroad or from other parts of India; up to a few years ago a small amount was annually manufactured in Orissa, but this manufacture has been discontinued, and the accumulated stock of locally made salt has now been exhausted. In the other maritime tracts of the province, also, the manufacture of salt is prohibited. The amount of salt imported by sea during the year 1903–04 was 11,170,000 maunds, as shown in the margin; there was an increase of 5 per cent. as compared with 1902–03. Half of the total imports came from the United Kingdom, but English salt has in recent years been to a large extent displaced by salt imported from Aden and the Red Sea. Imports of German salt returned to rather more than the figure of 1901–02. The amount of Madras salt carried into Orissa by rail rose from 828,800 maunds to 918,800, while the imports of the same article by sea began again, under the encouragement of new regulations, which admit of the duty being paid, not on exportation, but on arrival. This salt is specially manufactured, and is of high quality, which enables it to compete with Liverpool salt. The average wholesale price of salt, including duty (Rs. 2 per maund), at the chief marts of Bengal was about Rs. 3⅛, having decreased by almost exactly 8 annas, as compared with the previous year. The average wholesale price of Liverpool salt in 1903–04 was Rs. 53⅓ per 100 maunds from the ship's side at Calcutta, exclusive of duty, compared with Rs. 56¼ in 1902–03. Bengal.

| Salt Imports by Sea. | 1902–03. | 1903–04. |
|---|---|---|
| | Maunds. | Maunds. |
| From United Kingdom | 5,233,000 | 5,599,000 |
| „ Germany | 900,000 | 1,530,000 |
| „ Red Sea | 3,604,000 | 3,529,000 |
| „ Persian Gulf | 280,000 | 109,000 |
| „ Madras | — | 147,000 |
| „ Bombay | 598,000 | 256,000 |
| Total | 10,615,000 | 11,170,000 |

The net amount of salt consumed in the province was 11,148,000 maunds, as compared with 11,046,000 maunds in 1902–03. The consumption of salt per head of the population during the last two years is given in the marginal table. It will be seen that the rate of consumption in Bengal outside the saliferous areas remained stationary. This is ascribed to an unfavourable season in some districts, and in part to a recrudescence of illicit manufacture. The number of cases in which contraband salt was confiscated was 1,510, and there were 577 prosecutions instituted during the year for offences under the salt laws.

| — | 1902–03. | 1903–04. |
|---|---|---|
| | Lbs. | Lbs. |
| Saliferous tracts (including Orissa). | 12·31 | 12·47 |
| Rest of province | 11·18 | 11·18 |

SALT. Madras.

There were in Madras available for the manufacture of salt by solar evaporation 21 Government and 45 other factories; but of these, six Government and three other factories were not at work during the year 1903–04. The season was very unfavourable for salt manufacture, on account of heavy rains. The amount of salt produced is given as 6,667,000 maunds, or nearly 32 per cent. less than in 1902–03, and nearly the lowest figure recorded in the last ten years; of this amount, 4,129,000 maunds were manufactured in private factories. An attempt has been made to produce by sifting a large-grained salt which should compete with Bombay salt, of which a large quantity is imported annually; but the difficulty of disposing of the siftings except at a loss has resulted in its abandonment, though the Bombay method of manufacture is still followed to some extent in two factories. The average wholesale price of "excise" (*i.e.*, private factories) salt works out to nearly Rs. $3\frac{1}{8}$ annas per maund, or rather more than in the preceding year. Government salt is sold at fixed prices (the usual rate being 3 annas per maund) with a view to controlling the price of "excise" salt; it is reported that the average retail price of salt varied in the several districts between Rs. $2\frac{3}{16}$ and Rs. $3\frac{15}{16}$. Excluding the salt used for fish-curing, or bought by the French Government, the total of salt issued for consumption during the last three years was as follows :—

| —— | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|
| | Maunds. | Maunds. | Maunds. |
| Government, excise, and sea-imported salt - | 8,984,823 | 9,122,219 | 9,930,133 |
| Salt imported from Bombay by railway - - | 615,050 | 658,503 | 510,957 |
| | 9,599,873 | 9,780,722 | 10,441,090 |

After deduction of salt exported from the Presidency, which amounted to 1,548,000 maunds, the average consumption per head of the population was 16·5 lbs. in the whole Presidency, including Mysore and Coorg, with the Native States except Travancore and Cochin. The corresponding figure for 1902–03 was 16·05 lbs.

During the year under report there were 136 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 53,271 tons, the weather having been favourable for fishing, and 824,800 maunds of cured fish left the yards in a fit condition for use. The cost of the yards to the Treasury was more than covered by the amount realised for salt. Prosecutions under the salt laws were much less numerous than in previous years; of 2,375 persons charged with salt offences, 316 were released by departmental officers with a warning, and 2,013 were sent for trial.

Bombay.

The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government, on the Runn of Cutch (Baragra salt); from sea-salt works on the coast; and by importation. Of the sea-salt works one, at Dharasna, is worked by the Government; the remainder, of which there are some hundreds, are owned by, or leased to private individuals; the imports of salt come chiefly from Goa. The year was not very favourable for the production of salt, and the issues of salt were large, so that the stock at the Pritchard salt works fell rather below the amount desired by the Government, namely, a reserve equal to two years' supply. The following table shows the issues of salt from each source for the last two years :—

SALT.

| | 1902–03. | | 1903–04. | |
|---|---|---|---|---|
| | Total Issues. | For Local Consumption. | Total Issues. | For Local Consumption. |
| | Maunds. | Maunds. | Maunds. | Maunds. |
| Baragra salt - - - | 2,091,508 | 392,195 | 2,270,211 | 438,690 |
| Sea salt - - - | 7,121,109 | 2,033,485 | 6,462,757 | 2,014,264 |
| Imported salt - - - | 272,815 | 221,891 | 280,855 | 225,366 |
| Total - - | 9,485,432 | 2,647,471 | 9,013,823 | 2,678,320 |

The issues of duty-paid salt in the whole Presidency, excluding Sind, were at the rate of 10·5 lbs. per head of the population, but in Gujarat, as usual, the average was lower, amounting only to 9·9 lbs. per head. The corresponding figures of the previous year were 10·38 lbs. and 8·9 lbs. per head of the population. The comparison is very favourable in Gujarat, but elsewhere in the Presidency the cyclone of May 1903, which destroyed many of the stocks of sea salt and raised the price of the remainder, tended to restrict the consumption. Outside Gujarat, there was a decline of $\frac{1}{5}$ lb. per head. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt is fixed at $1\frac{1}{4}$ annas per maund, and the purchasers get the full benefit of the reduction of the tax to Rs. 2 per maund. But the price of sea salt was, in most districts, higher than in the previous year, owing to the cyclone. The average market price per maund ranged between Rs. $2\frac{9}{16}$, the price in the Ahmedabad district, and Rs. $4\frac{3}{8}$ in Bombay. The number of detected offences against the salt law was 710, most of them being clandestine removals of natural salt; this figure is 50 per cent. below that of the preceding year. Twenty-nine fish-curing yards were open at the end of the year. The quantity of fish brought to be cured in bond was 184,400 maunds, and 56,400 maunds of cheap salt were issued to fish-curers; the fish-curing season thus showed a marked improvement over that of last year.

Sind.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 287,600 maunds.* The consumption per head of the population was 7·37 lbs., against 7·39 lbs. in the preceding year and 7·13 lbs. in 1901–02. The average market price of salt is returned as having been Rs. $2\frac{7}{8}$, which shows a reduction, as compared with last year's average, of rather more than the 8 annas by which the duty was reduced. One fish-curing yard was worked during the year, and used 970 maunds of salt and 4,600 maunds of fish. All the salted fish manufactured was exported.

| | Maunds. |
|---|---|
| * From Maurypur - | 239,200 |
| „ Saran - - | 16,200 |
| „ Dilyar - | 20,500 |
| Net imports - - | 11,700 |

Burma.

The amount of imported salt which paid duty in Burmese ports during the year 1903 was 1,275,000 maunds. This comes chiefly from England and Germany, and pays a duty of Re. 1 per maund; imports from Germany constituted about 54 per cent. of the total given above, Liverpool salt comprising 42 per cent. A marked feature of the year was the attempt made by the Liverpool shippers to recover the position which they formerly held in the imports into Burma. In 1902 their shipments had amounted to no more than 25 per cent. of the total. The excise duty on locally manufactured salt was levied generally by a composition rate on vessels used for boiling brine, the amount of which varied in different parts of the province; but a system of levying duty on actual output is being experimentally tried in the Hanthawaddy, Bassein, and Myaungmya districts, and has proved financially successful and is increasing in favour with the manufacturers. The

SALT. estimated output of locally manufactured salt in 1903 was 705,600 maunds, against 544,800 in 1902. The total amount of local salt actually consumed, as distinct from the amount issued, cannot be accurately stated, but it may be estimated at about 610,000 maunds. Prices of salt ruled generally lower than in 1902, mainly because of the lower rates quoted by importers in Rangoon, owing to competition. It is not, however, apparent that the lower prices led to any increase in consumption. The imports of salted fish fell from 333,300 to 232,400 maunds, owing to the low prices prevailing, which hindered the competition of salted fish from the Straits Settlements.

EXCISE.

## EXCISE.

General. The excise revenue of India is raised by various methods, including:—(1) Monopolies for the manufacture or for the sale, or both, of liquors over defined areas; (2) Still-head duty and fees on spirits manufactured at central distilleries; (3) Licences for the working of outstills at specified places, with the privilege of selling the produce; (4) Licences for the sale of various kinds of liquor; (5) Tax on trees used for the manufacture of toddy, or on mhowra flowers used for distillation; (6) Licences for the sale of intoxicating drugs; (7) Duty on opium and hemp drugs consumed.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee are also free from all duties, with the exception of the small tea cess now levied for the purposes of the trade. The proceeds of the excise duty on woven cotton goods manufactured at power mills are brought to account under the heading of "Customs."

Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the United Provinces and Burma, and over part of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength; but in some cases the duty is levied on the raw material from which the spirit is distilled. The still-head duty ranges from Rs. 2 to Rs. 5 (in Burma, Rs. 6) per gallon of London proof spirit; if the cost of licences be added, the total duties are in some places more than six rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system, and assumes different forms in different provinces; in Northern India the distilleries are places under Government supervision where licensed distillers are allowed to set up stills and to manufacture spirits generally after a more or less rude fashion. Elsewhere they are large concerns, under private or Government management, at which spirits are made on improved principles. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. In certain parts of India, including the north and west of Bengal, about half of the Central Provinces, the whole of Assam, and in limited tracts in Burma, revenue is levied on Indian spirits by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the out-still system as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way.

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* A customs duty is also levied on all imported spirits, wines and beer, but credited to the head of Customs. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

The following table gives the excise revenue of 1903–04 for each province under the different heads, as shown in the Finance and Revenue Accounts :— EXCISE.

| | India (General) | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| License and distillery fees, and duties for the sale of spirits, fermented liquors, and drugs, viz. :— | | | | | | | | | | | | |
| Foreign liquors, &c. - | 16,514 | 80,643 | 52,636 | 18,663 | 1,769 | 97,001 | 1,137 | 362 | 1,390 | 28,123 | 23,542 | 321,680 |
| Country spirits - - | 51,344 | 526,977 | 397,030 | 105,267 | 5,559 | 94,563 | 112,143 | 100,500 | 47,258 | 482,125 | 585,602 | 2,508,368 |
| Toddy - - - | 2,602 | 73,043 | 11,388 | — | — | 34,563 | 1,633 | 1,379 | 15 | 588,097 | 97,080 | 809,800 |
| Opium and its preparations. | 2,118 | 48,671 | 17,893 | 28,019 | 2,332 | 21,091 | 14,438 | 10,410 | 22,914 | 22,475 | 2,374 | 192,765 |
| Other drugs - - | 2,575 | 118,353 | 114,270 | 23,776 | 3,379 | 1 | 6,119 | 1,592 | 14,627 | 12,317 | 19,273 | 316,282 |
| Duty on opium consumed in India. | 497 | 123,837 | 37,199 | 9,387 | 561 | 246,819 | 26,547 | 14,707 | 101,409 | 33,667 | 53,424 | 650,054 |
| Acreage on land cultivated with the poppy. | — | — | — | 1,606 | — | — | — | — | — | — | — | 1,606 |
| Duty on ganja - - - | — | 112,277 | — | — | — | — | 8,579 | 1,791 | 13,914 | 8,562 | 14,139 | 159,262 |
| Fines, confiscations, miscellaneous. | 3,754 | 2,595 | 152 | 75 | 1 | 3,583 | 89 | 217 | 70 | 4,886 | 4,857 | 20,279 |
| Total Revenue - - | 79,404 | 1,086,396 | 630,568 | 186,693 | 13,601 | 497,621 | 170,685 | 132,958 | 201,627 | 1,180,252 | 800,291 | 4,980,096 |
| *Deduct* -Charges - - | *1,839* | *54,237* | *7,081* | *3,883* | *519* | *46,764* | *3,424* | *1,497* | *1,317* | *66,465* | *26,902* | *213,928* |
| Net Revenue, 1903–04 | 77,565 | 1,032,159 | 623,487 | 182,810 | 13,082 | 450,857 | 167,261 | 131,461 | 200,310 | 1,113,787 | 773,389 | 4,766,168 |
| Net Revenue, 1902–03 | 131,199 | 1,000,326 | 549,608 | 174,036 | 12,362 | 352,546 | 146,856 | —* | 193,619 | 976,222 | 699,875 | 4,237,449 |

* Included under India (General).

A net sum of £524,400 was yielded by customs duties on exciseable articles imported into India during the year 1903–04, and thus the total net drink and drugs revenue amounts to nearly 5½ annas a head on the population affected. The year shows the highest figure which has been reached by the excise revenue, but the Government of India have recently, in circular orders to the local Governments on the subject of a memorandum by Mr. Lely, I.C.S., an additional member of the Governor-General's Council, re-stated their ruling that the raising of revenue is not a primary object of excise administration, and have ordered it to be impressed upon excise officers that the growth of excise revenue is to be regarded as satisfactory only when it results from the substitution of licit for illicit manufacture and sale, and not from a general increase of consumption. The growth of the net excise and customs revenues on liquors and drugs consumed in India during past years is shown in the margin.

| | £ |
|---|---|
| 1874–75 - | 1,755,000 |
| 1883–84 - | 2,840,000 |
| 1894–95 - | 3,965,000 |
| 1895–96 - | 4,118,000 |
| 1897–98 - | 3,940,000 |
| 1898–99 - | 4,107,000 |
| 1900–01 - | 4,239,000 |
| 1902–03 - | 4,741,000 |
| 1903–04 - | 5,291,000 |

With regard to the specific suggestions made by Mr. Lely in his memorandum, the Government expressed their entire concurrence with the view that close attention should be paid to the locality of existing shops, and not only to the sites for new shops, and they formulated the general rule that an established shop should not be allowed to remain on a site which would not be permissible for the location of a new shop. Others of Mr. Lely's suggestions respecting liquor shops, such as that they should be concentrated in a single part of a town, should be half a mile from any place of common resort, &c., were reviewed by the Government of India and remitted for the consideration of the local Governments, who have passed such orders as were considered suitable to the circumstances of their respective provinces, with a view to carrying out the Government of India's policy, stated thus by that Government :— "The Government policy is to discourage drinking and to do all that is "possible, without undue interference with the liberty of the subject, to "suppress the degrading and demoralising habit of intoxication."

For the 228¼ millions of the population inhabiting the various excise tracts covered by the statistics, the total number of shops licensed for the

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retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:—

| PROVINCE. | Number of Retail Shops licensed in 1903-04 for the Sale of | | | | | Total in 1903-04. | Total in 1902-03. (revised.) | Population of Excise Area, by Census of 1901. |
|---|---|---|---|---|---|---|---|---|
| | Country Spirits. | European Liquors Imported or made in India. | Toddy and Rice-Beer or other Indian Fermented Drinks. | Opium. | Narcotic or Intoxicating Drugs, other than Opium. | | | |
| Bengal - - - | 3,382 | 556 | 30,033 | 1,716 | 3,718 | 39,405 | 37,557 | 74,620,000 |
| United Provinces - - | 5,998 | 303 | 4,281 | 1,214 | 3,736 | 15,532 | 15,369 | 47,671,000 |
| Punjab - - - | 1,275 | 283 | 41 | 1,445 | 1,287 | 4,331 | 4,319 | 20,306,000 |
| North-West Frontier Province. | 54 | 49 | — | 87 | 93 | 283 | 276 | 2,042,000 |
| Burma - - - | 72 | 442 | 1,552 | 121 | — | 2,187 | 2,153 | 9,187,000 |
| Central Provinces - - | 6,811 | 103 | 613 | 952 | 1,055 | 9,534 | 9,103 | 9,305,000 |
| Berar - - - | 1,081 | 32 | 929 | 423 | 177 | 2,642 | 2,642 | 2,664,000 |
| Assam - - - | 213 | 60 | 23 | 752 | 298 | 1,346 | 1,361 | 5,760,000 |
| Madras - - - - | 10,178 | 684 | 18,770 | 1,208 | 590 | 31,430 | 31,259 | 38,196,000 |
| Bombay and Sind - - | 2,769 | 439 | 8,737 | 1,095 | 1,145 | 14,185 | 14,433 | 18,534,000 |
| Total - - | 31,833 | 2,951 | 64,979* | 9,013 | 12,099 | 120,875 | 118,472 | 228,285,000 |

* Of this number, 19,223 are licences for domestic consumption only, issued in Bengal and Bombay, which were not included in the similar table given last year.

The increase in the Central Provinces is due to the taking over by Government of the outstills in the zamindari estates in the Chanda district, there having been a decrease in the number of outstill shops in the Central Provinces proper; the increase in Bengal occurred for the most part under the head of toddy licences. The Bombay figures under "other drugs" include 163 shops for the sale of cocaine, which now for the first time requires a licence for its sale. There were thus 120,895 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop or domestic consumption licence to an average of 1,888 of the population. In the United Kingdom in 1903-04 there were nearly 171,600 licences for the retail sale of beer, wine and spirits, or one shop to about 245 of the population. Occasional or part-year licences have been excluded from the figure for the United Kingdom, and, so far as possible, from those for India. The number of them issued in the United Kingdom during the year was 28,300, while the temporary or part-year licences which have been excluded from the Indian figures are less than 2,000 a year.

Bengal.

In Bengal the total excise revenues of 1903-04 and the two previous years, as given in the departmental returns, were as follows:—

| Receipts from | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits - - - | 468,115 | 497,239 | 526,911 |
| Foreign liquors and rum - - - | 38,291 | 41,815 | 40,461 |
| Fermented local liquors, toddy, and rice-beer | 106,067 | 110,227 | 113,213 |
| Opium - - - - | 174,685 | 176,810 | 172,806 |
| Ganja, bhang, and their compounds - - | 213,224 | 225,352 | 230,311 |
| Miscellaneous - - - | 1,305 | 1,072 | 2,729 |
| Total Excise Revenue - | 1,001,687 | 1,052,515 | 1,086,431 |
| *Add* duties levied in the Presidency on imported liquors. | 141,667 | 148,891 | 148,849 |
| Total Revenue from Drink and Drugs - £ | 1,143,354 | 1,201,406 | 1,235,280 |

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The excise revenue was 3 per cent. higher than the figure for 1902–03, which was the highest on record; the advance was most marked under the head of country spirits, while there was a decline in the receipts from opium owing to smaller consumption. The average incidence of the total excise revenue in Bengal was 3½ annas per head, of which nearly two-thirds was derived from liquors. Of the country spirit revenue, that accruing under the out-still system in the year under report slightly exceeded that under the distillery system, the order of 1902–03 being thus reversed. The former system is in force in the Rajshahi and Chittagong divisions, and in parts of western Bengal, containing altogether a population of 40 millions; the rest of the province, containing 34¾ millions, is under the central distillery system. The number of central distilleries was 29, in addition to 33 depôts; that of out-stills was 2,116. The still-head duty levied on central distillery liquor ranged from Rs. 2 to Rs. 5 per gallon of proof spirit. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated, from statements furnished by the vendors, at about 1½ million gallons at London proof; the amount of imported spirits consumed in the province cannot be stated; issues of country spirits from distilleries rose to 692,600 gallons, which is 6 per cent. higher than in 1902–03; and 36,900 gallons of rum, mostly imported from Shahjahanpur, were consumed.

To the third item in the table given above, toddy contributed £73,000, and rice beer £39,900. A large proportion of the people consume rice beer, and there were 12,282 licences for home-brewing in addition to those included in the tabular statement above, while free home-brewing of small quantities is allowed.

Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1903–04 being, to the United Provinces, 117 maunds; to Assam, 579 maunds; to Nepal, 262 maunds, and 192 maunds (15,800 lbs.) to London. The area of land employed for ganja cultivation was 2,730 acres, and the produce was about 10,375 maunds. The number of shops for the retail sale of ganja in the province was increased by 33 to 2,793. The consumption of opium was 2,258 maunds, against 2,351 maunds in the previous year. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or after the Bengali manner, known as *madak*, and it is believed that the consumption of opium in those forms is decreasing. Attention has been directed to the use of cocaine as an intoxicant, and the drug was brought under the excise law. Vigorous measures were being taken by the Department under the new powers thus given, and it is believed that this noxious habit has been brought under some control.

United Provinces.

The latest excise report for the United Provinces relates to the year ending in September 1903. For the last three years the gross excise revenues have been:—

| Gross Receipts from | 1900-01. | 1901-02. | 1902–03. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits and fermented liquors | 296,509 | 346,395 | 379,147 |
| Foreign liquors and rum | 38,840 | 43,479 | 48,176 |
| Opium | 50,047 | 53,362 | 54,616 |
| Other drugs | 84,657 | 87,733 | 101,271 |
| Miscellaneous | 231 | 286 | 268 |
| Total £ | 470,284 | 531,255 | 583,478 |

Excise. The general prosperity of the people is reflected in the continued expansion of the excise revenue. The gross receipts for the year under report exceeded the record figures of the previous year by nearly 10 per cent. This increase has been attained partly by the enhancement of the quantitative duties levied, partly by improved administration; and the consumption of country spirits, though 6½ per cent. larger, did not increase to quite the same extent as the revenue. The increase of receipts occurred chiefly under the head of country spirits, though all headings show higher figures. The revenue from this source is raised for the most part under the distillery system, though some tracts on the north and on the south of the province are under farming or out-still systems. It is the policy of the Government to centralise the distilleries in order to improve methods of manufacture, establishing bonded warehouses for the local distribution of liquors. The rate of still-head duty charged has been increased from Rs. 2 to Rs. 2½ per gallon of London proof spirits in most parts of the province, a proportionate enhancement being fixed for spirits 25 degrees under proof. The number of out-stills and shops rose from 1,440 to 1,455. The consumption of spirits under the farming and out-still systems cannot be stated, but the amount of country spirits consumed in the distillery tracts, which constitute most of the province, is given as 1,367,500 gallons at London proof, or 6½ per cent. more than the consumption of the previous year.

The amount of the quantitative duty on Bengal ganja was, as before, Rs. 6 to Rs. 9 per seer. The duty on charas was Rs. 4 per seer, which also was the general rate of duty on ganja from places other than Bengal. The quantity of hemp drugs consumed included 342 maunds of ganja, 2,271 maunds of charas, and a large quantity of bhang, the two former figures showing an increase. An inquiry was held into the question of the smuggling of ganja into the province from Bundelkhand states. The consumption of opium also (1,581 maunds) was rather higher than in 1901-02.

Punjab. The gross excise revenues in the Punjab in the last three years were raised as follows:—

| Receipts from | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Spirits made in India - - - | 95,114 | 101,865 | 108,734 |
| Imported liquors and beer - - - | 13,312 | 14,575 | 14,840 |
| Opium - - - - - | 39,357 | 40,236 | 39,039 |
| Other drugs and miscellaneous - - - | 19,190 | 21,673 | 24,080 |
| Total - - - £ | 166,973 | 178,349 | 186,693 |

It is possible that part of the increase of receipts under country spirits was due to the greater activity in the suppression of illicit distillation, resulting in a higher consumption of licit spirit. There is an enormous amount of illicit distillation in many districts of the Punjab, and as the price of licit liquor is from 10 to 14 times that of the illicit product the practice is hard to suppress. The measures mentioned in recent reports have greatly improved the quality of the licit spirit, and the course which is now suggested is to reduce its price in selected districts, at the same time taking stringent measures against illicit distillation.

The quantity of spirits manufactured at the private distilleries is returned as 257,500 gallons at London proof strength. Imported liquor to the amount of 69,700 gallons must be added, in order to obtain the figure of consumption in the Punjab. The province stands fourth in respect of population, but in the excise revenue is almost lowest of the great provinces, owing partly to the abstemious character of much of the population, and partly to the consumption of illicit spirit. The licit spirit supply works out at an average of about one-tenth of a quart per head of the population in the year. It is

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reported from several districts that the plague caused a considerable increase in the consumption of spirits, which are regarded by the people as a prophylactic. There is practically no revenue from native fermented liquors, which are not consumed to any extent. The amount of opium retailed, or issued from the Government treasuries, is returned as 1,346 maunds. The area under poppy was 8,395 acres, against 6,914 acres in 1902, and the yield is returned as 1,797 maunds, or 57 per cent. more than in the earlier year, and a fall in the wholesale price was the result. The import duty on Malwa opium is Rs. 4 per seer, and on that imported from Kashmir and the Hill States Rs. 2 per seer. There was a considerable consumption of bhang (2,216 maunds), and the retail sales of charas are said to have increased from 878 to 963 maunds. It was determined to increase the rate of duty on this harmful drug from Rs. 2 to Rs. 6 per seer, with effect from the 1st April 1904.

North-West Frontier Province.

The excise receipts in the North West Frontier Province amounted to £13,600 only, and though this is higher than in 1902–03 the consumption of spirits and hemp drugs had fallen off largely. The licit opium consumption showed an increase, owing to stringent measures against smuggling.

Burma.

In Burma the gross excise revenue during the past three years was raised thus :—

| Receipts from | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|
| | £ | £ | £ |
| Liquors imported or made in Burma by European methods at distilleries. | 83,442 | 75,320 | 97,551 |
| Country spirit (*i.e.* spirit made at out-stills) - - | 8,895 | 8,839 | 9,633 |
| Toddy - - - - - - - | 31,431 | 37,240 | 34,771 |
| Rice-beer - - - - - - | 37,771 | 72,004 | 80,356 |
| Opium - - - - - - - | 205,338 | 204,330 | 303,345 |
| Fines - - - - - - - - | 3,199 | 2,871 | 3,342 |
| Total - - £ | 410,076 | 400,604 | 528,998 |
| *Add*,—Duty on Imported liquors - - - | 74,705 | 83,722 | 102,741 |
| Total - - £ | 484,781 | 484,326 | 631,739 |

The revenue derived from spirits and fermented liquors was much higher than in 1902–03, when the figures were unduly low, and was 10 per cent. greater than that recorded in the earliest of the three years. Most of the increase occurred under the heading of licences for sale of imported liquors, the consumption of which appears to be increasing in the province. With the increase in agricultural prosperity a larger consumption of liquors might, perhaps, be expected ; but the attention of the Department is being given to measures for the restriction of the alleged growing tendency to drunkenness in Lower Burma. In certain places where there is an ascertained demand for country-made spirit, out-stills are permitted under strict and close supervision ; there were 39 of these out-stills in Lower Burma and 12 in Upper Burma during 1903–04. The excise duty on distillery spirits is Rs. 6 per gallon, which is the same as the import duty on foreign spirits. The increase of nearly 50 per cent. in the opium revenue is held to show that the new measures introduced experimentally in Lower Burma in 1902, and extended in 1903 to Upper Burma, have substituted to some extent licit for contraband opium. Some of the main features of the scheme have been to increase the number of shops, so as to bring a supply within a more reasonable distance of authorised opium consumers ; to place all sales at the licensed shops under the direct supervision of a Government officer ; to ensure thereby that opium is sold only to persons permitted to possess it, and in quantities not exceeding the legal limit ; to increase the supplies to the shops to the extent needed to meet the demands of such persons ; and to strengthen the preventive staff so as to check the trade in contraband opium. The scheme is still on its trial, and no final opinion on its success can yet be given.

Excise. No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; nor are there available accurate statistics of the consumption of imported beer and spirits. The issues of spirits made in Burma by European methods rose from 55,724 to 69,195 gallons; the amount of opium issued from the Government treasuries was 1,797 maunds, which was 40 per cent. more than in the preceding year, owing to the new arrangements mentioned above.

Central Provinces. In the Central Provinces the excise receipts of recent years have been as follows:—

| Receipts from | 1894–95. | 1900–01. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Country spirits | 115,649 | 69,637 | 80,414 | 95,326 | 110,357 |
| Opium | 65,298 | 48,514 | 46,574 | 53,512 | 58,079 |
| Ganja | 18,055 | 11,246 | 11,839 | 12,862 | 14,435 |
| Toddy | 1,493 | 1,457 | 1,561 | 1,618 | 1,633 |
| Miscellaneous, including foreign liquors | 1,937 | 2,827 | 3,056 | 2,990 | 3,605 |
| Total £ | 202,432 | 133,681 | 143,444 | 166,308 | 188,109 |

These figures show that the Excise Department has shared in the reviving prosperity of the province, but they are still below those of the year 1894–95, which was the last normal year before the famines. It is believed that there was a fairly general rise of 30 per cent. in the amount of spirits consumed, and that the province is now reverting to its normal consumption, after a long series of most abnormal years. The issues of spirits from the distilleries were equivalent to 306,800 gallons at London proof strength, an increase of 31 per cent. compared with the preceding year. The consumption in out-still areas cannot be stated.

The excise system of the province was during the year under the consideration of a Committee appointed to report on the existing system and to suggest improvements. Their report was not received within the year. The greater part of the country is supplied with spirits from out-stills, from which nearly 41 per cent. of the country spirit revenue is derived; the number of these out-stills was 1,929, having been increased by the taking over of excise arrangements in some zamindaris by the Government. The policy of curtailing the area under out-stills continued to be followed. In two districts, Nagpur and Nimar, a modified bonded warehouse system had been for some years on its trial, and the desirability of extending this system to other parts of the province was one of the matters referred to the Committee.

There was a large increase in the amount of opium issued from the Government treasuries during the year—769 maunds, against 702 maunds in 1902–03—but there is much smuggling in the north of the province, and this figure is far from representing the whole of the actual consumption of opium. The duty on ganja was raised from Rs. 3 to Rs. 4 per seer at the beginning of the year 1901–02, and the consumption at first fell; but in the year under report it rose again to 824 maunds, which shows an approach to its level under the lower duty. Its cultivation has recently been prohibited in the feudatory states of Orissa, and inquiry was ordered with respect to its cultivation in some feudatories of the Central Provinces. The number of licences for the cultivation of ganja in the Nimar district rose from 111 to 140, but the area cultivated was 146 acres only, and it was necessary to import some of the drug from the Bombay Presidency.

In Berar the gross excise revenue of the last three years has been as follows :— Excise., Berar.

| | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirit and toddy | 68,480 | 81,928 | 101,862 |
| Opium | 16,847 | 22,381 | 27,782 |
| Ganja | 2,708 | 2,836 | 3,361 |
| Foreign liquors and miscellaneous | 481 | 577 | 599 |
| Total | 88,516 | 108,722 | 133,604 |

As in the case of the Central Provinces, there was an increase under all heads, and especially under that of country spirits. The central distillery system was in force throughout three districts and in the greater part of a fourth, and will be further extended. Elsewhere, the outstill system exists, and there were 581 outstills during the year. The consumption of distillery liquor amounted to 197,300 gallons at London proof, which was much higher than in previous years. A uniform rate of stillhead duty on country liquor, namely Rs. $2\frac{1}{2}$ on strength of 25 degrees below proof, and Rs. $1\frac{1}{4}$ on strength of 60 degrees below proof, came into force in the preceding year. The amount of opium issued from the Government treasuries increased to 393 maunds, and 162 maunds of ganja and 22 maunds of bhang were consumed. With effect from the 1st April 1901, the rates of duty on opium and ganja were raised respectively from Rs. 10 to Rs. 15 per seer and from Rs. 3 to Rs. 4 per seer. Neither of these drugs is produced in Berar, the cultivation of poppy and of hemp for this purpose being forbidden.

The excise revenue of Assam for the year 1903-04 and two previous years was distributed thus :— Assam.

| Receipts from | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 46,854 | 46,382 | 47,175 |
| Imported liquors and rum | 1,517 | 1,506 | 1,390 |
| Opium and its compounds | 114,067 | 119,435 | 124,353 |
| Ganja and its compounds | 26,318 | 27,197 | 28,543 |
| Miscellaneous, including toddy, &c. | 113 | 142 | 165 |
| Total | 188,869 | 194,662 | 231,626 |

Two important administrative changes were made in the Assam excise department in 1903-04, the first relating to the division of the chief control between the Commissioner of the Assam Valley districts and the Chief Commissioner of the province, the latter of whom will control excise matters outside the Assam Valley; and the second change being the appointment of three excise inspectors. The excise revenue in the year under report exceeded the figures for 1900-01, which were the highest previously recorded. The returns from country spirits were higher, and the revenue from opium, which is by far the most important part of the excise revenue of the province, was exceptionally large, owing to the prosperity of the Assamese agricultural population by whom opium is consumed. The country spirits are for the most part consumed by the immigrant population, which has grown rapidly during the past few years; no estimate of the consumption of spirits for the year is available, as the central distillery system has not been introduced except as an experiment in the Sibsagar district, and the out-still system prevails everywhere

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eise. Orders were not passed by the Government of India during the year upon the report prepared by the Assam authorities as a consequence of Mr. Buckingham's memorandum, but several changes were made, among the most interesting of which may be numbered the experimental introduction of a distillery system in Sibsagar. The number of spirit shops was reduced from 216 to 213, no new shop being opened, and all complaints against the sites of shops received the most careful consideration. The indigenous population in the two Surma Valley districts consumes most of the ganja issued (649 maunds). Taking the province as a whole, the consumption of opium per head of population is more than twice as large as in any other part of India, and seven or eight times that of Bengal or the United Provinces. The amount of opium issued from the Government treasuries was 1,335 maunds, which was 61 maunds more than in 1902–03, but this increase leaves the consumption still very markedly less than it was a generation ago, and hopes are expressed that the opium habit is slowly diminishing.

Madras.

The gross excise revenue of Madras during the last three years was raised thus :—

| Receipts from | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 357,969 | 403,282 | 478,515 |
| Toddy | 497,089 | 529,654 | 585,706 |
| Foreign liquors and miscellaneous | 32,523 | 30,620 | 33,330 |
| Opium and other drugs | 66,337 | 72,249 | 76,719 |
| Total | 953,918 | 1,035,805 | 1,174,270 |
| *Add*,—Customs duties on imported liquors | 62,256 | 69,696 | 76,631 |
| Total Revenue from Drink and Drugs - £ | 1,016,174 | 1,105,501 | 1,250,901 |

Distillery supply systems are in force over the greater part of Madras. The distilleries are all private concerns working on European methods. In some small tracts non-distillery systems are in force, but these areas are being restricted. Still-head duty is levied on all spirits issued from the distilleries; the rate varies, but generally speaking is Rs. $4\frac{3}{8}$ per gallon at proof strength. The amount of country spirits consumed in 1903–04 in distillery areas is returned as 1,207,000 gallons at proof strength, compared with 1,012,000 gallons in the preceding year. The increase is ascribed to the favourable character of the season, and partly also to improved arrangements by which contractors are obliged to keep stocks of liquor in outlying parts, the temptation to rely on illicit liquor in such areas being thus lessened. Owing to these causes, the spirit revenue showed a noteworthy advance, as also did the revenue from toddy. Under both these headings the receipts were much higher than those of any previous year. Over nearly the whole of the Presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for fermented toddy, while the shops for retail sale of toddy are separately sold by auction to the highest bidder. The amount of toddy consumed in the Presidency cannot be stated, but the increase in the receipts from the tree tax by more than 10 per cent. points to a larger consumption. On the general question whether the consumption of intoxicants is increasing in the Madras Presidency, raised by Mr. Lely's memorandum mentioned above, the Government of Madras remark that facilities for drinking have during the last 20 years been kept rigidly in check, that the luxury of drinking has been made more expensive, and that the quantity of intoxicants consumed per head of the population has decreased.

The use of opium is almost restricted to the districts in the north-east of the Presidency, chiefly the Godavari district, where the rate of consumption (111 grains per head) is high. The quantity consumed in the Presidency, including that used in the manufacture of drugs, is given as 978 maunds, compared with 890 maunds in 1902–03. The amount of hemp drugs of all kinds sold by retail is returned as 1,127 maunds.

EXCISE. Bombay.

The central distillery system obtains throughout practically the whole of the Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, who guarantees a fixed minimum return of duty to the Government, and nearly all the revenue is obtained from still-head duties. In the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licences. The Bombay still-head duty ranges between Re. 1 and Rs. 5⅓ per proof gallon, averaging about Rs. 3½. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The general fiscal results of the excise management in Bombay, Sind, and Aden during the last three years were—

| Gross Receipts from | 1901–02. | 1902–03.* | 1903–04. |
|---|---|---|---|
| | £ | £ | £ |
| Locally-made liquors, including toddy | 596,357 | 417,634 | 682,470 |
| Foreign and Indo-European liquors | 18,023 | 12,096 | 23,353 |
| Opium | 49,160 | 34,257 | 56,829 |
| Intoxicating drugs | 31,600 | 20,591 | 33,104 |
| Miscellaneous items | 10,773 | 7,015 | 5,409 |
| Total Excise Revenue | 705,913 | 491,593 | 801,165 |
| *Add*,—Customs duties on imported liquors | 193,094 | 203,939† | 215,148 |
| Total Revenue from Drink and Drugs - £ | 899,007 | 695,532 | 1,016,313 |

* Eight months only. † Twelve months.

The rate of consumption of country spirit per head of the population in Bombay proper rose from 7·2 drams, the average of the last five years, to 8·2 drams in 1903–04. The amount of country spirit consumed in the year was returned as 2,087,000 gallons at London proof strength, against an average of about 1,853,000 gallons for each of the last five years. The figures as a whole are taken to be a satisfactory indication of returning prosperity. The revenue from toddy, which stood at £103,500, also shows a notable increase. In Sind the consumption of country spirit was stationary, and the revenue from this source showed a slight falling off as compared with the preceding twelve months. Issues of opium from Government treasuries for internal consumption are returned at 1,020 maunds in Bombay and 250 maunds in Sind, each of which figures is higher than the corresponding figure for 1902–03. The increase was most notable in Sholapur, Khandesh, Ahmednagar, and Ahmedabad, and is attributed to gradual recovery from the famine. The amount of hemp drugs sold during the year included 2,959 maunds of bhang (chiefly in Sind), 755 maunds of ganja (chiefly in Bombay), and 533 maunds of other preparations. These figures in each case show an appreciable increase in consumption; but they are generally subject to large fluctuations, especially in Sind, where the consumption of bhang reached the high amount of 4,251 maunds 11 years ago.

## STAMPS.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts, and under Act II. of 1899 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of

EXCISE. exchange, receipts, and the like. The following table gives the stamp receipts, province by province, for the year 1903–04 :—

| | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Sale of court fee stamps | 15,239 | 968,176 | 420,775 | 184,737 | 15,975 | 109,475 | 66,991 | 33,154 | 47,246 | 352,781 | 233,785 | 2,448,334 |
| Sale of commercial and other stamps. | 7,590 | 349,684 | 126,572 | 78,780 | 9,583 | 84,522 | 29,334 | 23,178 | 18,154 | 203,538 | 131,656 | 1,062,591 |
| Fines and miscellaneous | 248 | 4,508 | 2,799 | 6,350 | 168 | 2,223 | 376 | 226 | 430 | 7,540 | 44,454 | 69,322 |
| Gross Stamp Revenue of 1903-04. | 23,077 | 1,322,368 | 550,146 | 269,867 | 25,726 | 196,220 | 96,701 | 56,558 | 65,830 | 563,859 | 409,895 | 3,580,247 |
| Revenue of 1902-03 | 52,526 | 1,304,696 | 536,460 | 263,316 | 25,946 | 175,591 | 97,410 | * | 68,280 | 549,898 | 399,588 | 3,473,711 |

* Included under India (General).

The refunds of the year were £42,010, and the charges of collection and cost of stores came to £122,379.

## CUSTOMS.

CUSTOMS. Import duties, which had been abolished in India in 1882, and were re-imposed in 1894, are levied, generally speaking, at the rate of 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material, industrial or agricultural machinery, food grains, raw materials such as coal, jute, raw cotton, or wool, besides books, and gold and unset precious stones, which are all admitted free of duty ; petroleum, which pays one anna per gallon ; and iron and steel, on which an import duty of 1 per cent. *ad valorem* is levied. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns, while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised ; all cotton yarns whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India, the products of the village handloom industry being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of unhusked rice. An Act empowering the Government of India to put a countervailing duty on any imported goods which have received a bounty, direct or indirect, from the country of export, was passed in 1899 ; and this was put in force with regard to sugar. Subsequently, in accordance with the views of the Brussels Convention, and in view of the protection enjoyed by sugar-growers in certain countries in their home markets, Act VIII. of 1902 was passed, by which a special additional duty was imposed on sugar coming from countries where the duties on imported sugar exceeded those levied on locally produced sugar by 6 francs per 100 kilogrammes in the case of refined sugar, or 5½ francs for other sugar, the amount of the additional duty being one-half of such excess. In August 1903 a further amendment of the Tariff Act was passed, giving power to continue the countervailing duties until the 31st March 1904, but this was subsequently held to be inconsistent with the undertakings of the Government, in view of the fact that bounties were abolished with effect from 1st September 1903 by the States adhering to the Convention, and the duties were therefore discontinued, so far as concerned sugar of the new crop coming from those countries.

The appended table shows the changes in the net customs revenue caused by the above-mentioned changes, giving the figures for 1894–95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December 1894 ; 1895–96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896 ; and the three most recent years, during the whole of which the tariff remained unchanged, with the exception of the sugar duties, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list :—

| | 1891–95. | 1895–96. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|
| Sea Customs, import duty : | £ | £ | £ | £ | £ |
| Arms, ammunition, and military stores. | 10,126 | 11,403 | 12,563 | 10,699 | 8,252 |
| Liquors | 406,355 | 440,669 | 469,256 | 504,006 | 542,196 |
| Petroleum | 213,118 | 270,782 | 348,222 | 356,438 | 291,303 |
| Cotton manufactures | 256,631 | 776,483 | 683,214 | 634,189 | 653,193 |
| Silver bullion and coin | 230,557 | 231,859 | 204,054 | 258,976 | 267,069 |
| Other metals | 135,078 | 168,641 | 154,010 | 203,716 | 222,827 |
| Other articles | 630,450 | 686,725 | 863,432 | 800,565 | 910,205 |
| Countervailing duties on sugar | — | — | 244,398 | 73,360 | — 22,572 |
| Export duty on rice | 594,016 | 609,581 | 595,680 | 823,280 | 780,863 |
| Miscellaneous | 6,694 | 1,770 | 22,307 | 19,626 | 21,674 |
| TOTAL Sea Customs | 2,483,026 | 3,197,913 | 3,597,136 | 3,682,855 | 3,675,010 |
| Land Customs | 15,884 | 13,397 | 14,185 | 18,301 | 21,307 |
| Excise duty on cotton manufactures. | 6,897 | 40,632 | 114,456 | 121,698 | 135,740 |
| Miscellaneous (including warehouse and wharf rents). | 10,773 | 18,672 | 20,386 | 18,974 | 18,767 |
| TOTAL NET CUSTOMS REVENUE | 2,516,580 | 3,270,614 | 3,746,163 | 3,841,828 | 3,850,824 |

The total receipts remained about the same as in the previous year, in spite of considerable variations under special headings. The income from the countervailing duties on sugar disappeared, and was replaced by a net charge on account of refunds. The continued large imports of silver are a remarkable feature of the last three years, and afford an index of the increasing prosperity of the country. The growth of the receipts from the excise duty on cotton goods shows the healthy vitality of this important industry. The reduced receipts from petroleum are due to the replacement of Russian and American oil by oil from Burma.

## PROVINCIAL RATES.



Provincial rates or cesses are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. They are assessed either on the "assets," or rental value, or else, as is the case in the ryotwari provinces, on the land revenue, and they are collected with the land revenue. In Bengal there are two cesses, for roads and public works respectively, which are limited by law to half an anna in the rupee of the rental in each case, or one anna in the rupee ($6\frac{1}{4}$ per cent.) for the combined cesses. They are levied on immovable property outside the municipalities on a valuation made and kept up from year to year for this purpose. In the ryotwari provinces of Bombay and Madras the incidence of the local rates (for roads and schools) is precisely that in force in Bengal, with the difference that the percentage is on the revenue instead of on the rent, and that they form, therefore, probably a smaller proportion of the profits of the land. In Lower Burma the local rates amount to 10 per cent., and in Assam to 8·3 per cent., on the ryotwari revenue. These are the highest rates. In the Punjab, the United Provinces, and the Central Provinces, the local rates are assessed on double the land revenue, that revenue being, except in the case of the Central Provinces, rather less than half the rental assets. In the Punjab they are equivalent to 5·2 per cent. on the rental value. Elsewhere they do not exceed 4 per cent. In the Agra Province they are charged at 6 per cent., but two-fifths of the produce are devoted to the maintenance of the village watch, which in Bengal and other parts of India is a charge upon special contributions assessed and collected apart from the local rates.

PROVINCIAL RATES.

The following is a table of the rates and cesses collected during the year :—

| — | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| District Local Fund : | | | | | | | | | | | | |
| Cess on Land for expenditure on roads, schools, hospitals, and general purposes. | 4,089 | 325,501 | 380,210 | 152,691 | 9,850 | 117,295 | 29,179 | 22,699 | 40,901 | 422,691 | 199,444 | 1,704,550 |
| Provincial : | | | | | | | | | | | | |
| Cess on land for expenditure on roads, schools, &c. | — | 325,647 | — | — | — | — | 252 | — | — | — | — | 325,899 |
| Cess on land for famine assurance, canals, and railways. | — | — | 87,197 | 40,109 | 4,761 | — | 13,165 | — | — | — | — | 145,232 |
| Cess on land for district post. | — | 25,099 | — | 7,610 | 466 | — | 2,985 | — | — | — | — | 36,160 |
| Cess on land for village service and patwaris. | 3,835 | — | 166,755 | 96,943 | 8,406 | — | 29,882 | 20,402 | — | 178,354 | 27,509 | 533,086 |
| Assessment on wards' estates for establishment charges. | — | 10,382 | — | 1,112 | 131 | — | — | — | 31 | — | — | 11,656 |
| iscellaneous - - - | 3,086 | — | 64,265 | — | 413 | — | — | — | — | 2,002 | — | 69,766 |
| Total Receipts - | 11,010 | 686,629 | 698,427 | 298,465 | 24,027 | 117,295 | 75,463 | 43,101 | 40,932 | 603,047 | 226,953 | 2,825,349 |
| Refunds and charges of collection. | 6 | 30,948 | 295 | 237 | 22 | 5,391 | 90 | 25 | 177 | 1,059 | 4,344 | 42,594 |
| Net Receipts, 1903-04 - | 11,004 | 655,681 | 698,132 | 298,228 | 24,005 | 111,904 | 75,373 | 43,076 | 40,755 | 601,988 | 222,609 | 2,782,755 |
| Net Receipts, 1902-03 - | 48,205 | 638,194 | 703,237 | 270,373 | 22,971 | 107,239 | 77,579 | * | 45,299 | 601,133 | 185,338 | 2,699,568 |

* Included under India (General).

## INCOME TAX.

INCOME TAX. General.

The principal provisions of the Income Tax Act (II. of 1886) are that incomes derived from salaries and pensions, or from interest on securities (classed as Parts I. and III. in the returns), if amounting to Rs. 2,000 per annum, should pay five pies in the rupee (equal to $6\frac{1}{4}d.$ in the £), and if less than Rs. 2,000, four pies in the rupee ($5d.$ in the £); that companies (Part II.) should pay five pies in the rupee on their net profits; and that income derived from other sources (Part IV.) should pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pies in the rupee. All incomes of less than Rs. 1,000 (£$66\frac{2}{3}$) a year were exempted by an Act passed at the beginning of the year 1903–04, which substituted that minimum limit for the limit of Rs. 500 which previously existed. The tax is not levied on profits or incomes derived from agriculture, or on military salaries of less than Rs. 500 a month (£400 a year).

The receipts on account of income tax in each province were as follows :—

| — | Gross Collections. | Refunds and Collection Charges. | Net Receipts | |
|---|---|---|---|---|
| | | | 1903–04. | 1902–03. |
| | £ | £ | £ | £ |
| India (General) - - - | 91,967 | 437 | 91,530 | 111,082 |
| Bengal - - - - - | 335,766 | 13,922 | 321,844 | 380,940 |
| United Provinces - - - | 138,456 | 1,554 | 136,902 | 174,967 |
| Punjab - - - - - | 86,800 | 1,520 | 85,280 | 105,392 |
| North-West Frontier Province - | 6,729 | 149 | 6,580 | 7,551 |
| Burma - - - - | 81,606 | 3,367 | 78,239 | 79,956 |
| Central Provinces - - - | 20,510 | 290 | 20,220 | 24,453 |
| Berar - - - - - | 9,673 | 447 | 9,226 | * |
| Assam - - - - | 17,052 | 163 | 16,889 | 21,116 |
| Madras - - - - - | 172,182 | 3,436 | 168,746 | 205,882 |
| Bombay - - - - | 253,924 | 5,953 | 247,971 | 267,183 |
| Total, 1903-04 - - £ | 1,214,665 | 31,238 | 1,183,427 | — |
| Total, 1902-03 - - £ | 1,410,428 | 31,906 | — | 1,378,522 |

* Included under India (General).

The decrease, owing to the above-mentioned raising of the limit of exemption, was marked in all provinces, though least noticeable in Burma. INCOME TAX.

The figures in the following paragraphs are taken from the provincial reports, and differ to some extent from those given above, which were taken from the final Accounts of the Government of India.

In Bengal the collections in 1903–04 amounted to £315,300, compared with £375,100 in the previous year, and the number of assessees fell from 131,100 to 54,500. The elimination of assessees with incomes below Rs. 1,000 has, therefore, relieved more than one half of the former assessees, while losing only one-sixth of the demand. Deducting from the 1902–03 figures the receipts from the class now exempted, the revenue of the year under report shows an increase at the rate of 2·5 per cent. The realisations under Part IV. amounted to £197,500, from 37,975 assessees, compared with £241,600 from 100,570 assessees in 1902–03. Calcutta contributed £169,300, against £182,700 in the previous year; £85,600 of this was under Part IV. The collections under Parts II. and IV. show an incidence per head of the population of approximately Re. $1\frac{3}{4}$ in Calcutta, which is about the same as in Bombay, but less than in Rangoon. Bengal.

In the United Provinces the total receipts for the year 1903–04 were £132,250, compared with £189,400 in the previous year. This shows a decline of 21 per cent., owing to the raising of the minimum limit; and the number of assessees, 32,100, was 58 per cent. less. The classes which appear to have benefited most from the change are the small money lenders, the dealers in food stuffs and piece goods, and the Government servants on small salaries. United Provinces.

The total receipts in the Punjab were £77,800, which is 20 per cent. less than the receipts of the preceding year. But if the tax paid by assessees with incomes less than Rs. 1,000 be deducted from the 1902–03 figure there remains an increase of about 5 per cent. Under Part IV. a net total of £57,500 was realised from 18,400 assessees, 9 per cent. having been struck off the initial assessment on objection. The separation of the North-West Frontier Province has not caused any important reduction in the receipts of the last three years, owing to the paucity of wealthy income-tax payers in the districts concerned. Punjab.

The Income Tax Act, though in force in the whole of Burma and the Shan States, has only been made operative in certain selected towns and villages throughout Lower Burma, and in Mandalay town alone in Upper Burma; no fresh villages were brought under the Act during the year. The number of assessees fell from 31,412 to 14,872, but the total collections amounted to £79,100, which was not 3 per cent. below the total of 1902–03. In Rangoon there was an increase in the receipts under Part IV., in spite of the change of the law. The total collections in Rangoon amounted to £44,600, including the tax on the salaries and profits of the Burma Railways Company; the collections under Part IV. in the town were £20,700, paid by 2,906 assessees. The incidence per head of the Rangoon population of the collections in the town under Parts II. and IV. was Rs. $2\frac{1}{8}$, which is higher than that prevailing in Calcutta or Bombay, owing to the heavy contributions of the Railway Company. Burma.

In the Central Provinces the yield in 1903–04 was £19,200, or £4,300 less than that of the previous year, while the number of assessees was less by 58 per cent. Under Part IV. the collections for the year were £11,000, paid by 2,891 assessees. Central Provinces.

In Assam the yield of the tax was £16,400, which was 20 per cent. below the figure for the previous year, being collected from only 45 per cent. of the number of assessees. The profits of the tea companies, on which the prosperity of the province mainly depends, are taxed in Calcutta and in London, but 42 per cent. of the receipts from the tax are paid by persons in the employ of companies, collections under Part IV. being comparatively small. Assam.

The collections in Madras fell to £160,300 in consequence of the raising of the taxable minimum, and the incidence of taxation throughout the Presidency fell from $1\frac{1}{4}$ anna to $1\frac{1}{2}$ anna per head of population. The detailed Madras.

INCOME TAX.

returns for 1903–04 are not available, and particulars cannot, therefore, be given of the tax paid in Madras city.

Bombay.

In the city of Bombay, where 59 per cent. of the income tax of the Presidency was paid, the receipts of the year were £143,500, from 20,000 assessees, about half of this sum being collected under Part IV. The receipts from profits of companies are also important in Bombay city, amounting to £20,000. For the whole Presidency the collections amounted to £241,800, compared with £260,300 in the preceding year, the number of persons paying the tax having fallen from 91,332 to 49,245. Of this amount, £143,900 accrued under Part IV. The collections under Parts II. and IV. together, namely, those on private salaries and industrial and professional incomes, work out to an incidence of Re. $1\frac{3}{4}$ per head of the population in Bombay city. This is far above the incidence in other parts of the Presidency, though Karachi and Ahmedabad showed an incidence of 9 and $8\frac{1}{2}$ annas per head respectively.

# CHAPTER IX.

## FORESTS.



The subjoined table gives the forest receipts, expenditure, and net revenue for each province during the year 1903–04 from the Finance and Revenue Accounts :—

| | India, (General). | Bengal. | United Provinces. | Punjab. | North West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Receipts - - - | 46,639 | 71,035 | 152,030 | 114,520 | 6,789 | 551,236 | 92,724 | 40,477 | 45,049 | 177,182 | 183,436 | 1,481,117 |
| EXPENDITURE. | | | | | | | | | | | | |
| General direction - - | 5,847 | — | — | — | — | — | — | — | — | — | — | 5,847 |
| Conservancy and Works - | 20,465 | 24,231 | 42,573 | 54,169 | 2,268 | 142,007 | 30,199 | 6,317 | 13,712 | 60,275 | 54,090 | 450,306 |
| Establishments - - - | 12,309 | 22,669 | 29,523 | 22,926 | 1,773 | 81,486 | 39,115 | 9,767 | 14.653 | 56,453 | 64,306 | 354,980 |
| Charges in England - - | 2,485 | — | — | — | — | — | — | — | — | — | — | 2,485 |
| TOTAL Expenditure - | 41,106 | 46,900 | 72,096 | 77,095 | 4,041 | 223,493 | 69,314 | 16,084 | 28,365 | 116,728 | 118,396 | 813,618 |
| Net Revenue or Forest Surplus, 1903–04 - | 5,533 | 24,135 | 79,934 | 37,425 | 2,748 | 327,743 | 23,410 | 24,393 | 16,684 | 60,454 | 65,040 | 667,499 |
| Net Revenue or Forest Surplus, 1902–03 - | — 444 | 41,216 | 67,422 | 41,754 | 3,135 | 256,586 | 24,404 | * | 16,847 | 51,885 | 43,515 | 546,320 |

* Included under "India (General)."

Systematic conservancy of the Indian forests is based on the Forest Law of 1878, which gave to the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. The principle upon which the forest administration is based is that State forests should be administered for the public benefit, and they are worked, therefore, with a view of combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and retainers of moisture in the soil. The forests are classified, according to the degree of completeness of the management undertaken, as "reserved," "protected," or "unclassed" forests. In the case of reserved areas the control of the Forest Department is more complete than in the case of the protected or unclassed forests. In the latter category, the area of which cannot be stated with any great exactness, there are included large tracts of uncultivated land, especially in Burma, much of which will in all probability pass into cultivation as agricultural land. Among the most important measures of conservancy are the exclusion, so far as possible, of the yearly fires which used to devastate the forests, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 92,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves there are about 150,000 square miles of State forests, including 9,300 square miles of protected forests, and 9,400 square miles of "district protected forests" in the United Provinces. Some part of this area will eventually be brought within the reserve area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests with which this

FORESTS. chapter deals are, almost exclusively, those which belong to the State. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use free of charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. Some of the better-managed Native States, such as Kashmir, Mysore, Travancore and Baroda, have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1904.

Bengal. In Bengal, at the end of the year, the areas of reserved and protected forests were 6,014 and 3,567 square miles, besides 4,033 square miles of unclassed forests in the Chittagong Hill tracts. Survey operations were carried on and brought to a close by a detachment of the Forest Surveys in Singhbhum, Darjeeling, and Kalimpong, and 307 square miles were surveyed on the 4-inch scale. Settlement operations were in progress in Chittagong and Buxa. A considerable amount of progress was made with working plans, which had been sanctioned over an area of 4,394 square miles of forest, while they were being compiled for a further area of 1,328 square miles. Attempt was made to exclude fire from 2,169 square miles, and the effort succeeded in 95 per cent. of that area. This figure is not so good as in previous years owing to one large fire in the Samta range, which originated outside the forests and burnt a forest area of 80 square miles. Forty-seven per cent. of the total area was thrown open to cattle for grazing, including all the unclassed forests, 1,809 square miles of protected forests, and 597 square miles of reserves. The year was favourable for natural reproduction, but it is noted that reproduction of the more valuable trees depends on absolute closure to grazing. The yield of timber was 4,294,000 cubic feet, which was 36 per cent. less than in 1902–3, owing chiefly to changes in the Sundarbans, where the forests have been over-worked in the past; the outturn of fuel (32½ million cubic feet) was also smaller; the number of bamboos taken from the forests was 25⅓ millions. The financial results show a surplus of £23,900 or 34 per cent. of the gross receipts.

United Provinces. The total area of reserved forests in the United Provinces fell from 3,918 to 3,895 square miles in 1903–04, in addition to 153 square miles of leased forests; there was also an area of 30 square miles of protected forests under the Forest Department at the end of the year, besides 9,363 square miles of "district protected forests," which are under the Forest Act, but are controlled by district officers, and 77 square miles of unclassed forest. There is no settlement of rights remaining to be done in the Central and the School forest circles, but in the Oudh circle there is a considerable amount of work still left. Satisfactory progress was made in the preparation of working plans for the reserved forests, and the area of forests not under a working plan was only 375 square miles, for 303 of which no regular plan is required. Survey operations are equally advanced, being practically complete in the Central circle. Protection from fire was attempted over 3,211 square miles, and was remarkably successful, only about ·4 per cent. of that area being destroyed by fire. The area thrown open to cattle, for the whole or part of the year, was 2,114 square miles, and the number of cattle grazed was over 600,000. The yield of the forests was 6,830,000 cubic feet of timber, 11,120,000 cubic feet of fuel, and 17⅛ million bamboos, besides

minor produce. These figures again show a marked increase. The removal of forest produce is almost entirely carried on by outside agency. The only important departmental operations are the supply of fuel to Naini Tal, the export of railway sleepers, and the manufacture of turpentine and colophony. The latter industry is proving a success, the produce being of excellent quality and prices being good. The gross forest revenue was £151,200, and the expenditure was £76,500, leaving a surplus of £74,700, besides a small net receipt from the working of the district protected forests. FORESTS.

The reserved forest area administered by the Punjab Forest Department at the end of 1903–04 comprised 1,917 square miles, besides 116 square miles under military or other control. The protected forests aggregated 4,909 square miles, while an area of 1,914 square miles appears on the books of the Forest Department as unclassed forest and 539 as leased forests. As in other recent years, a considerable area under each class was "disforested" for transfer to the canal colonies, a loss which will be to some extent made good by the substitution of irrigated plantations under the Forest Department. A record of rights was completed for 12 square miles of protected forests, and was in progress over 221 square miles. All the reserves, excepting 153 square miles, had been taken under survey, but large areas of protected and unclassed forests were unsurveyed. Working plans for several forests were in different stages of preparation, though no new plan was sanctioned during the year. They are complete for 1,829 square miles of protected forests, 480 square miles of reserves and 297 square miles of leased forest, and are under compilation for a further area of 1,480 square miles. For most of the remaining area it is reported that plans are not required. The year was favourable as regards forest fires; the area burnt was ·1 per cent. of the total area under the Forest Department; special fire protection was attempted over an area of 862 square miles, of which ·9 per cent. was burnt. Natural reproduction was bad, so far as regards the deodar, which holds the most important place in this province; the area of regular plantations rose to 977 acres, but the area under cultural operations fell from 6,475 to 5,934 acres. The total yield of the forests for the year was returned at 4,419,000 cubic feet of deodar and pine timber and 27¼ million cubic feet of firewood, besides about a million bamboos; 34¼ million cubic feet of timber and fuel were removed by free-grantees and right-holders without charge or at special rates; 3⅓ millions were worked out by Government agency, and 3⅔ millions by purchasers. The area available for grazing under the charge of the Department was 9,278 square miles, and of this 90 per cent. was thrown open to cattle, while an additional 2 per cent. was open during part of the year; 853,000 cattle are reported to have grazed in the forests, for the most part by right under the settlements. The total forest revenue of the year was £110,000, against an outlay of £63,700, yielding a surplus of £46,300. PUNJAB.

The total area of the reserves under the direct control of the Department in the Frontier Province was 234 square miles, and there were also 131 square miles of civil protected forests. It is not necessary to enter into the details of the working of this area; but it may be stated that there has been a steady and substantial increase in the out-turn of timber and fuel. A noteworthy development is the action taken to regulate the use of the village forests, for which rules came into force on the 1st January 1904. The rules are to be administered by the Deputy Commissioner, and are intended to stop the exhaustion by which these forests were threatened. NORTH-WEST FRONTIER PROVINCE.

The reserved forest area in Burma was increased by 329 square miles during the year ending in June 1904, bringing it up to 20,038 square miles; the unclassed forests, much of which will ultimately be cultivated, are given as covering rather more than 103,000 square miles. Settlement of rights has been completed over nearly the whole area of the reserves. A Survey of India party (No. 20) completed 1,115 square miles of forest survey in various parts of the province, but large areas of reserves remain to be surveyed. Working plans were completed for 3,266 square miles by the end of the year, and plans for a further 2,007 square miles were being compiled. In the meantime annual or preliminary plans of operations are formed for all BURMA.

FORESTS. reserved forests. The results of fire protection were much better than in the previous year. The area which it was attempted to protect was increased to 8,150 square miles, of which about 6 per cent was burnt, a result partly due to a favourable season and partly to the energetic efforts of the staff. Fair progress was made with the extension of teak and cutch *taungya* plantations in Lower Burma. Planting at the Mergui rubber plantation was retarded, owing to the damage done by wild animals; the area planted up to the end of the year was 1,588 acres. The quantity of teak extracted from the forests was 11⅞ million cubic feet, equal to 237,500 cubic tons; of other timbers, nearly 17 million cubic feet were extracted, besides 19¾ millions as fuel. The year was more favourable than the preceding one for floating timber down the rivers, and the output improved accordingly. The total of teak exports from Burma was 171,100 tons, compared with 157,900 tons in 1902–03, and the average value per ton is stated at about £6, or rather more than in the preceding year. The receipts for the forest year were £568,000, and the expenditure was £233,400, leaving a surplus of £334,600, which was much higher than the surplus of the preceding year, owing to the larger amount of timber extracted, and also to the high prices obtained at the sales of Government teak.

Central Provinces and Berar. Berar having been placed under the Government of the Central Provinces in 1903, the Berar forests were administered during the year 1903–04 as a forest circle under that Government, and the statistics of the two provinces may be reviewed as a whole. The grand total of the area of the forests was 22,675 square miles, or 172 less than in the previous year, as the result of disforestation in the Nimar district. Survey work in the northern circle had been completed, and that in the southern circle very nearly so; but much still remained to be done in Berar, and the services of the Forest Survey of India were being employed there. No new working plans were sanctioned during the year, and though good progress was made in one plan in the Balaghat division, most of the work under this heading was still in abeyance pending re-classification of forests. Fire was excluded from rather less than 97 per cent. of the 7,100 square miles in which special fire protection was attempted, and from 87 per cent. of that partially protected. The year was generally favourable for natural reproduction by seed. Various projects for the improvement of the forests were in hand, such as the combined field and forest cultivation in Berar and the northern circle, experiments with furniture woods in the southern circle, the revival of the tussar silk industry, and trials of lac and sandal growing. Eighty per cent. of the area of the forests was open to cattle for grazing during the whole of the year, and the number of cattle grazed was about three millions. The amount of timber removed from the forests during the year, chiefly by private persons, was 3,952,600 cubic feet, that of fuel 22,836,600 cubic feet, and 15⅔ million bamboos were extracted, with other minor produce. The forest revenue of the year, including the Berar circle, was £134,400, against an expenditure of £87,700, leaving a surplus of £46,700, compared with a surplus of £42,100 in 1902–03. In the Berar and Southern circles the revenue was the highest on record. The steady expansion of the forest revenue is held to be an index of the improved conditions of the provinces, and still further development is to be expected as communications with the lines of railway are opened up, especially in the eastern districts, where a beginning is being made in exploiting the valuable sâl forests, hitherto hardly touched.

Assam. The State forests in Assam are divided into reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State other than reserved forests. The area of reserved forests stood at 3,778 square miles, as in the previous year. The area of unclassed forests is given as 18,500 square miles; but of this large area perhaps one half consists of grass or treeless tracts. An area of 160 square miles was surveyed by the Imperial Forest Survey Branch, besides survey work by divisional officers. In Goalpara the sâl (*shorea robusta*) forests are worked under a working plan, which was being revised, and preliminary plans were in hand for some other areas, but most of the forests are worked under yearly plans. Special fire protective measures extended over 996 square

miles, and were successful in respect of nearly the whole of that area; 196 square miles were protected on a less ambitious scale in Goalpara, none of which was burnt. The grazing question presents no difficulties in Assam; about one quarter of the reserves was opened to cattle, and the large area of unclassed forest was open to all animals throughout the year on payment by professional graziers and free to ryots. Natural reproduction was good on the whole, though sâl seeded badly in Goalpara. The rubber plantations at Charduar are being gradually extended, and covered 2,831 acres at the end of the year, yielding 5,360 lbs. of rubber. The gross result of the working of the forests is given as 4½ million cubic feet of timber and 8 million cubic feet of fuel. The revenue for the forest year ending in 1904 was £45,100, which was better than in any recent year, and the surplus was £15,000. **Forests.**

There was a net increase of 104 square miles in the reserved forests and lands in Madras during the year ending in June 1904, and the total area of reserves was 19,559 square miles, of which 17,923 square miles were classed as forests. Of the reserved forests, 271 square miles were finally included during the year under report; a further area of 1,119 square miles of reserved lands was awaiting settlement and inclusion in the forests. Two parties of the Survey of India completed 800 square miles of topographical survey, and minor survey work was also done by the Department. As regards the management of the forests, detailed working plans were sanctioned for 972 square miles during the year, and plans for 3,789 square miles were under preparation; but the greater part of the forests is still worked under annual plans. Protection from fire was undertaken over 5,600 square miles, but was successful in less than 91 per cent. of that area. The difficulty of achieving much success in this direction until the people are willing to co-operate is recognised by the Government. The area of the reserved forests open to cattle for grazing was 17,900 square miles, and 1¾ million cattle are reported to have grazed in them. Natural reproduction was satisfactory in most areas. The regular plantations, covering 27,125 acres, consist chiefly of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast, and there is a large area under other cultural operations. The yield of the forests according to the returns was about three million cubic feet of timber and 17⅓ million cubic feet of fuel, besides 37 millions of bamboos, and other minor produce; this outturn of timber and fuel was smaller than that of the previous year. The timber included 4,800 cubic tons of teak, chiefly from north Malabar. The total receipts were £179,400, which was the highest on record; and the surplus was £59,900. **Madras.**

The area of the reserved forests in the Bombay Presidency was 13,486 square miles at the end of 1903-04, and that of the protected forests 1,320 square miles. There were also various reserves under the management of the Department covering an area of 12,044 square miles, and 1,699 square miles of fodder reserves and pasture lands under the Revenue Department. The demarcation and settlement of the forest area has been for many years in progress, and it is believed that, so far as such a matter can approach finality, a conclusion has now been reached as to the area which can be beneficially treated as forest, and as to the establishment which is required to manage it. Working plans for 698 square miles were sanctioned, but they still had to be taken in hand over rather more than half the forest area. Fire protection was attempted over 9,441 square miles, of which about one-sixth was ravaged by fires. Natural reproduction was good in most parts of the Presidency, and teak seedlings did well where they were not damaged by fire; in Sind the good inundation gave satisfactory results in this respect. The yield of the forests included 4¾ million cubic feet of timber, 33½ million cubic feet of fuel, and about 5⅔ million bamboos. The revenue amounted to £178,300, and the expenditure to £118,800, leaving a surplus of £59,500. **Bombay.**

The area of reserved forests in Coorg was 242 square miles up to the end of the year, when three large blocks, comprising 168 square miles, were taken into the reserves, the reserved lands being thus reduced to 121 square miles; there was also a small area of protected forests; the chief timbers are teak and sandal wood. No new working plans were approved during **Coorg.**

FORESTS. the year; such plans exist for 178 square miles; preliminary plans will be made for the newly included area. The steps taken by the Forest Department to deal with the "spike" disease in sandal trees have not been successful so far as the extermination of the disease is concerned. It is, however, reported that they have succeeded in preventing its extension during the last two years. The season was an unfavourable one as regards fires; protection was undertaken over about 209 square miles, and was successful over nearly 98 per cent. of that area. There was, again, owing to smaller sales, a decrease in the quantity of timber removed from the forests, which amounted, including all the forests, to 221,400 cubic feet, in addition to 219 cubic tons of sandal wood, compared with 244,500 cubic feet, with 190 tons of sandal wood, in 1902–03. The forest surplus rose from £6,100 to £9,100.

# CHAPTER X.

## AGRICULTURAL AND MINERAL RESOURCES.

### Agriculture.

AGRICULTURE.

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract. There is an Inspector-General of Agriculture with the Supreme Government, whose function it is to guide and correlate the agricultural inquiries carried on throughout India, whether by the Supreme or the Provincial Governments, and to act as adviser to both in all matters pertaining to agriculture; while under him work the Agricultural Chemist, the Entomologist, and the Cryptogamic Botanist. During the year under report it was decided to establish an Agricultural Research Station, with an experimental farm and an agricultural college, on the Government estate of Pusa in the Darbhanga district of Lower Bengal. The scheme was fully described in a Resolution published by the Government of India on the 29th February 1904. The main functions of the farm are, to serve as a model for Provincial Governments to initiate lines of experiment, to test varieties of crops and seeds, to test the results obtained in provincial farms, and to provide a field for practical training for the College and for research work at the Research Station. The College is to have a complete curriculum, theoretical and practical, the full course of instruction taking five years. In connection with the College and the institution generally, other specialist appointments, in addition to those mentioned above, are being created, namely those of Bacteriologist, Biological Botanist, and Agri-Horticulturist, together with skilled assistants.

With a view to more thoroughly co-ordinating the work carried on by these officers and by the various scientific departments, and of directing it to the greatest possible extent towards practical research, a Board of Scientific Advice has been established, consisting of the heads of those departments, and such other scientific authorities as the Government may invite to serve on it; and the Government of India has the advantage of the advice of a special Committee of the Royal Society on the recommendations made by the Board.

The following provincial details on the subjects of seasons and crops, agricultural inquiry and experiment, and the working of the land records organisation, are taken from the reports of the Departments of Land Records and Agriculture.

Bengal.

The season 1903–04 in Bengal was on the whole not favourable to agricultural operations. The rainfall of June and August was defective in most parts of the province, and some uneasiness was at one time caused as to the prospects of the year. But the later part of the year gave a heavy rainfall, which to a large extent made up the deficiency. The area under autumn crops was $14\frac{3}{4}$ millions of acres, or one-third of a million less than in the preceding year; the winter rice crop covered $27\frac{1}{2}$ millions of acres, against $29\frac{3}{4}$ in 1902–03; and $14\frac{7}{8}$ millions were returned as having been sown with summer crops, or about two-thirds of a million more than in the previous year. The total area of all crops was $57\frac{7}{8}$ millions of acres, compared with a normal area of $62\frac{7}{8}$ millions, and with $59\frac{7}{8}$ millions in 1902–03. The final estimate of the out-turn of autumn crops was 81 per cent. of the normal; the winter rice crop was estimated to be 90 per cent., and the spring crops 90 per cent. of an average crop. Besides the winter rice

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crop, which is by far the most important crop of the province, the following crop out-turns may be quoted: autumn rice, 80 per cent. of the normal; jute, 94 per cent.; maize, 74 per cent.; sugar cane, 94 per cent; indigo, 65 per cent.

An investigation into sugar cane diseases was conducted by the Cryptogamic Botanist at the two experimental farms at Burdwan and Dumraon. A scheme of experiments in irrigation is now being taken in hand at these two farms and at the new experimental farm at Cuttack in Orissa, which was started during the year in accordance with the recommendations of the Irrigation Commission. Space will not admit of a reference to all the various experiments and investigations which were being conducted at the experimental farms and elsewhere in the province, both by the Government and by private individuals. The Lieutenant-Governor reported that a growing interest was being displayed in agricultural progress, but that the results obtained at the Government farms were not sufficiently disseminated among the people. A Provincial Agricultural Association had therefore been started in Calcutta to co-operate with the Government Director in his work.

The Silk Committee, formed in 1898–99 for the promotion of Pasteur's method of silkworm rearing, continued its operations in the silk-rearing districts. The operations, which consist in instructing the rearers how to select seed and to rear silkworms, have been attended with a considerable measure of success, and a new policy has been adopted, of establishing nurseries with mulberry plantations. Sericultural instruction is given in various schools; and itinerant overseers are also employed for the purpose of examining seed before purchase by rearers. Progress has been made in extending the silk industry in Midnapore and in the tributary states of Orissa.

There is no land record staff in Bengal, but in the tracts which have been cadastrally surveyed a considerable amount of statistical information is available as to cultivation, stocks and crops, and attempt is being made to introduce a record of the mutations of tenures. Reference has already been made, in the Registration chapter of this Statement, to the working of the Bengal Land Records Maintenance Act of 1895. Records are maintained in the Government and wards' estates which have been surveyed and settled.

United Provinces.

The monsoon of 1903 in the United Provinces opened late, but was favourable in August and September; heavy rains in October, however, did some damage to the growing autumn crops. The weather was very favourable for the spring crops generally. The crop area of the autumn harvest was a million acres below the preceding year's figures, and amounted to about 22 million acres, while the area under spring crops, $21\frac{1}{2}$ million acres, was two millions larger than in 1902–03. As regards the nature of the crops sown, rice, cotton, and small millets showed some falling off, for the most part owing to the light rains in June and July; but the autumn crops, which are sown a little later, show an increased area. Wheat occupied an area of about $7\frac{3}{4}$ million acres, and is reported to have given an out-turn over the whole provinces of 90 per cent. of the normal. Barley ($4\frac{3}{8}$ million acres) yielded the same percentage; peas and gram ($7\frac{1}{3}$ millions) 85 per cent.; millets ($6\frac{7}{8}$ millions) 80 per cent., and rice (6 million acres only, as compared with 7 million in 1902–03) 80 per cent. Indigo, sown on 141,000 acres, gave an out-turn which was 80 per cent. of the normal; and sugar cane, occupying rather more than a million acres, yielded 85 per cent. It is, however, stated that these estimates are made by the local staff, and cannot be trusted implicitly, and that there is a probability that the autumn crops were over-estimated, the spring crops under-estimated.

More than 90 per cent. of the village accountants and their assistants under the Land Records Department hold certificates from a patwari school, and only a small and decreasing number are exempted by reason of their age or efficiency. Their work is tested by supervisors and also by superior officers. In addition to the maintenance of the record, the patwari staff also makes cadastral surveys and records of rights, and this is carried out with very fair success.

The Agricultural Department gave assistance to the public by the distribution of implements and seeds, boring for wells, and issue or maintenance of 10 bulls for the improvement of the breeds of cattle. The seed

distribution is being extended; over 4,000 maunds of sound seed were sent out during the year to small cultivators, besides considerable transactions with landlords and planters. It is issued for the most part on loan, an equivalent amount of the produce being returned at harvest time *plus* 25 per cent., and there is practically no loss in recovery. AGRICULTURE.

At the Cawnpore experimental farm the season of the year ending in June 1904 was not, on the whole, unfavourable; though the autumn crop sowings were much delayed by the late monsoon. The operations were concerned, as usual, with manurial experiments and experiments with varieties of sugar cane, maize, jowar, and Kabuli gram, deep and shallow tillage, and some other matters. The Meerut Demonstration Farm, which was formerly under the District Board, was brought under the administration of the Agricultural Department. Experimental work has been abandoned in favour of demonstrations. The private demonstration farm at Jatau continued its useful work.

In the Punjab the conditions were favourable for sowings in both the harvests of 1903–04, and the conditions of agriculture, and its results, were excellent throughout the province, excepting in the Delhi and Gurgaon districts, which fared badly in both harvests. The autumn-sown area was nearly 13 millions of acres, and the following spring crop covered nearly $15\frac{1}{2}$ millions; the areas actually harvested were $10\frac{3}{5}$ and $13\frac{7}{8}$ million acres respectively, the area on which crops failed being smaller than usual. Wheat occupied more than $7\frac{4}{5}$ million acres, of which about $3\frac{3}{4}$ millions were unirrigated. The yield of the food crops as a whole is stated to have borne the proportion of 113·8 per cent. to the normal, while wheat yielded 118·6 per cent. The latter is the most important of the crops of the province, and its yield is estimated at more than 3 million tons. Sugar was grown on about one-third of a million acres, and yielded a crop equal to 96·7 per cent. of the normal. Cotton was grown on a million acres, and was above a normal crop, the average of the years 1900–01 and 1901–02 being taken as the standard for comparison. Punjab.

The total area of crops matured on irrigated land in the year 1903–04 was about $9\frac{2}{3}$ millions of acres, of which about $3\frac{1}{2}$ millions were irrigated from wells. Colonisation on the Chenab Canal, the extension of the Western Jumna, Bari Doab, and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during the last ten years :—

| | Acres. | | Acres. | | Acres. |
|---|---|---|---|---|---|
| 1893–94 - - | 2,523,378 | 1899–1900 - | 4,243,524 | 1902–03 - - | 4,887,677 |
| 1897–98 - - | 4,395,453 | 1901–02 - - | 4,530,766 | 1903–04 - - | 5,508,896 |

On the Chenab Canal the area allotted to cultivators in the year ending in September 1903 amounted to 72,000 acres, bringing the gross allotted area to a total of 1,773,400 acres, which is practically the maximum that the canal can at present irrigate. The area of crops sown was 1,551,000 acres. This was rather below the area sown in the previous year, owing partly to a rapid fall in the river at the time of sowing the spring crop; but on the other hand the crops were better.

Colonisation operations in the Jhelum Colony also were advanced, most of the preliminary business of boundary laying, &c., being finished, and an additional area of 43,500 acres being allotted. A feature of the scheme is the system of horse-breeding grants to applicants who possess a certain number of mares. No allotment was made during the year in the Chunian Colony on the Bari Doab Canal.

Satisfactory reports were received respecting the efficiency of the patwaris under the Land Records Department; returns and annual papers were submitted with commendable punctuality.

At the Lyallpur experimental farm, the chief object which has been kept in view in arranging the work is the study of different varieties of Punjab crops, especially of wheat, and their improvement by cross-fertilisation and selection. It is hoped that distribution of seed may soon be undertaken; but this cannot be done until a thoroughly satisfactory and superior variety

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of wheat has been secured. Cotton experiments are also made, and various other trials of different crops.

North-West Frontier Province.

The rainfall in the North-West Frontier Province in the year 1903–04 was favourable for the sowing of all crops and the out-turn was very good in respect, especially, of the spring crops. The area harvested, both in the autumn and the spring harvests, much exceeded that of the preceding year, as well as the average of the last three years, which is taken as the normal. It was just over $2\frac{1}{3}$ million acres, of which 910,000 acres were under wheat, and 375,000 acres under maize, the aggregate area of food grains being $2\frac{1}{10}$ million acres. The wheat yield was said to be the best within living memory, and barley and gram gave remarkably high out-turns, half as large again as the average of the preceding three years.

Central Provinces and Berar.

Berar having been amalgamated with the Central Provinces in October 1903, the agricultural conditions of the two provinces may be considered together. The rainfall of 1903, in contrast with that of the preceding year, was extremely heavy over the whole province, and at once the rice tracts reaped a splendid harvest, while a bumper wheat crop in the north was only prevented by the absence of rain in January. Cotton and juar, however, were comparative failures, the crops being damaged, and in some cases ruined, by excessive moisture. Prosperity, therefore, veered from the west to the east of the province, and this was undoubtedly of enormous benefit to the province as a whole, for the cotton area had never suffered in the famine periods as the other areas did, and in addition, the height of cotton prices helped to mitigate the effects of a poor cotton crop. The expansion of the cotton area in recent years is a notable feature of the agricultural history of the province. The area under wheat was 3 million acres; and spring crops as a whole showed an advance of $1\frac{1}{3}$ million acres, or 26 per cent., as compared with the year 1902–03. In spite, however, of the good results noted above, the produce of the Central Provinces is said to have been still something short of a normal out-turn on the area under crop before the famines. Recent years have seen the beginning of State irrigation in the province, nine large tanks being opened as famine works, and several large projects being prospected or begun. This work was prosecuted energetically during the year, and £63,000 was spent on protective and other irrigation works. The area under irrigation from village tanks and wells shrank, owing to the abundant rainfall, to 317,600 acres.

The Land Records staff was revised and strengthened in Raipur, and in Berar the system of Land Record supervision, introduced into Akola and Buldana in 1901, was extended to the other four districts. The ordinary work of the Department, as well as the improvement of the form of various village records, was carried out satisfactorily. The Land Records staff in Berar, however, is still in its early stages.

The Agricultural Department in the Central Provinces has been largely developed during recent years. The staff has been strengthened, two experimental farms have been purchased, at Hoshangabad and Raipur, in addition to the already existing farms at Nagpur and Telinkheri, several demonstration farms have been established, district agricultural associations and a Hindi Agricultural Gazette have come into existence, while attention has been given to the improvement of agricultural education. Of the experimental farms, Nagpur was the only farm on which much experimental work was conducted in the year 1903–04. The associations form a link between the Department and the agricultural community, and have already done much good work, in spite of their recent origin.

Burma.

In Burma the early rains in the year 1903–04 were light, the middle rains slightly deficient, and the later rains were heavier and continued longer than is usual. The area of crops rose from $11\frac{3}{4}$ million acres to 13 millions. Of this amount, nearly $9\frac{1}{3}$ million acres were sown with rice, and the yield was an excellent one. The final forecast for the 15 chief rice-producing districts of Burma estimated a full normal out-turn, and for the whole province the proportion was estimated at 91 per cent. of the normal. The cultivation of cotton, though not extensive at present compared with other cotton-producing provinces, is making fairly satisfactory headway. The area under

this crop was 160,100 acres, and the percentage of out-turn was 88 of the normal, against 93 in the preceding year. AGRICULTURE.

The Land Records Department keeps up to date the information gained at settlement, and conducts a supplementary survey annually, for the purpose of fixing the revenue demand, over an area which amounted to 41,900 square miles in 1903–04. It also keeps up the topographical maps on a scale of 1 inch or 2 inches to the mile. The scheme for employing village headmen has been under trial, with varying results, in several districts. On the whole it appears to be working with some success, and is being extended. There are 18 survey schools, at which an average number of 464 scholars attended during the year.

Beyond experimental gardens there are no establishments in the province for the conduct of agricultural experiments; but seeds of various products which appear to merit investigation are distributed for cultivation in suitable parts of the province.

In Assam the rainfall of the year 1903–04 was sufficient in both valleys of the province, but in some districts it was not well distributed; a large rainfall in October and November proved very favourable to the winter rice crop, which yielded a bumper out-turn; the scantiness of the winter rains occasioned a short out-turn of mustard. The area cropped was rather more than 5⅓ millions of acres, of which nearly 4 millions were under rice, one-third of a million under tea, and a quarter of a million under mustard. The various rice crops yielded bumper out-turns, well above the normal, in almost all districts. The yield of tea was exceptionally large, as is shown later in this chapter. Assam.

Nearly all the village officials under the Land Records Department had obtained a certificate in surveying. There were three survey schools in the province, at which 134 certificates were granted during the fifteen months ending in June 1904. The work of this staff requires careful supervision, and each district was visited by the Director of the Department or by the Superintendent during the year.

At the newly started Shillong experimental farm, experiments were continued with a view to discover new crops that may be grown profitably in the Khasi Hills. Among potatoes, a new variety named the "Patna" was favourably reported on. A large number of other experiments were continued with maize, flax, fruit trees, &c. American cotton has been tried, but hitherto without success. Silkworm cultivation was tried on a small scale and is reported to have succeeded, the silk being pronounced to be of a fine quality.

In Madras the rainfall was, on the whole, favourable to agricultural operations, and the area under crops, excluding permanently settled estates, rose to 28 millions of acres, including 6¼ millions of "wet" cultivation, against 27⅞ millions in 1902–03 and an average of 26½ millions for the past five years. Rice covered nearly 7¾ millions, showing an increase of half a million acres; while millets (8½ millions) showed a substantial decline. The area under cotton was 1¾ million acres, and was 200,000 acres above the corresponding area in 1902–03, as the result of good and timely rainfall. The out-turn of rice, according to the returns, was something like 92 per cent. of a normal crop; but the averages are based on the figures of the village officials, which are notoriously under-estimated, and the crop was a good one. The average prices of rice for the year were lower in all districts. Madras.

The district revenue establishments having proved unequal to the task of maintaining the village survey records, a special staff was introduced during the year into several districts where the records were fairly complete and ready for maintenance, and the appointment of a Deputy Director of Land Records was sanctioned. Some difficulties were at first found in the working of the staff, owing to the absence of sufficiently definite rules, but steps were taken to revise the procedure.

Two experimental farms, at Bellary and at Koilpatti in the Tinnevelly district, were started two years ago, but there has been at present little of value achieved. The sugar cane farm at Samalkot was more successful, and the distribution of selected seed had already been begun. It has been proposed to commence pumping experiments in various localities, on the

AGRICULTURE.

model of those conducted by a private gentleman at Melrosapuram, with the object of increasing the productive capacities of poorer soils. Experiments made at the farm attached to the Saidapet College with a variety of indigo known as *indigofera arrecta* were not successful, but they were to be repeated, and other varieties of indigo, which are held to be of commercial importance, were to be grown at the Agri-Horticultural Gardens at Madras. The number of students at the Saidapet Agricultural College was 46. The reorganisation of the College, and its transfer to the Agricultural Department, were under consideration.

Bombay.

In the Bombay Presidency also the season of 1903–04 was on the whole favourable. The monsoon was late, but when it came it was sufficient and seasonable for all sowing operations for the autumn harvest, and though the October rains ceased too early in Gujarat and the Deccan, the average fall in the year was above the normal in many districts. The Sind inundation was a good one. The area under crops in the whole Presidency was 28¼ millions of acres, of which 4⅛ millions were in Sind; the figures for the Presidency proper show a slight fall as compared with the previous year, those for Sind an increase of 19 per cent. Forty-four per cent. of the crop area of the Presidency, compared with 51 per cent. in 1902–03, consisted of millets; cotton covered 13 per cent. of it; wheat showed a large expansion, from 1½ to 2 million acres. The area irrigated in the Presidency, 4 million acres, consists chiefly of lands in Sind irrigated by Government or private canals; these amounted to more than 3 million acres, the area irrigated in the Presidency proper being 704,000 acres, chiefly of well irrigation. The out-turn of crops was generally good, cotton giving an especially satisfactory yield.

A large number of varied experiments were conducted at the farms at Poona, Manjri and Surat, as well as in other places of minor importance. Land has been acquired for a new farm at Nadiad. But the most important of the experiments in the Presidency is perhaps the trial of Egyptian cotton on land inundated from perennial canals in Sind, which appears to have met with a considerable measure of success. A new farm was to be started at Mirpur Khas in Sind, on which the suitability of Egyptian cotton, as well as other questions, could be tested. An important scheme for improving the system of agricultural education and research by developing the teaching of the Poona College of Science was under consideration.

The Land Record staff was at work in all the districts of the Presidency proper, and supervised the preparation of the records of rights in 46 subdivisions. In addition to their ordinary duties they proceeded with the training of village accountants in survey, and were also utilised in connection with the destruction of locusts.

## AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE.

Before giving the area under different crops, and its territorial distribution, for 1902–03, the most recent year for which complete figures are available, it is necessary to explain that the "crop area" is in all cases greater than the area of cultivated land, owing to double cropping. The extent to which this practice prevails is shown at the end of the following tables, which contain the detailed analysis of the crop area.

## TERRITORIAL DISTRIBUTION OF THE PRINCIPAL CROPS IN 1902-03.

*Figures in Thousands of Acres, omitting 000.*

I.

| —— | Rice. | Wheat. | Barley. | Millets. | | | Gram (Pulse). | Other Food-Grains, including Pulses. | Total Food-Grains. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cholum or Jowar. | Cumbu or Bajra. | Other Millets and Maize. | | | |
| Upper Burma | 1,535 | 20 | — | 996 | 106 | 92 | 09 | 268 | 3,086 |
| Lower Burma | 6,798 | — | — | — | — | 21 | 2 | 27 | 6,848 |
| Assam | 3,998 | 10 | — | — | — | 1 | 1 | 100 | 4,110 |
| Bengal | 37,057 | 1,446 | 1,456 | 135 | 62 | 2,953 | 1,078 | 5,340 | 49,527 |
| Agra | 4,351 | 5,057 | 3,032 | 2,192 | 1,684 | 1,608 | 3,878 | 4,344 | 26.146 |
| Oudh | 2,629 | 1,878 | 1,058 | 317 | 330 | 768 | 1,579 | 2,342 | 10,901 |
| Punjab | 606 | 6,414 | 733 | 1,207 | 1,975 | 1,359 | 1,975 | 1,512 | 15,781 |
| North-West Frontier Province | 26 | 699 | 170 | 75 | 164 | 358 | 152 | 101 | 1,745 |
| Sind | 787 | 313 | 8 | 643 | 767 | 2 | 70 | 196 | 2,786 |
| Bombay | 1,441 | 1,241 | 27 | 7,403 | 5,373 | 628 | 507 | 2,920 | 19,540 |
| Central Provinces | 4,553 | 2,286 | 17 | 2,251 | 48 | 172 | 869 | 3,990 | 14,186 |
| Berar | 37 | 217 | — | 3,169 | 68 | 4 | 140 | 410 | 4,045 |
| Madras | 7,735 | 20 | 3 | 4,657 | 3,046 | 1,920 | 158 | 7,092 | 24,631 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 81 | 14 | 46 | 80 | 43 | 85 | 14 | 21 | 384 |
| Total | 71,634 | 19,615 | 6,550 | 23,125 | 13,666 | 9,971 | 10,492 | 28,663 | 183,716 |

II.

| —— | Oilseeds. | Condiments and Spices. | Sugar. | Fibres. | | | Indigo. | Opium. | Tobacco. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cotton. | Jute. | Other Fibres. | | | |
| Upper Burma | 908 | 33 | 19 | 127 | — | 1 | — | — | 25 |
| Lower Burma | 63 | 23 | 13 | 14 | — | — | — | — | 35 |
| Assam | 343 | 8 | 42 | 3 | 35 | 2 | — | — | 5 |
| Bengal | 3,635 | 269 | 711 | 87 | 2,111 | 156 | 255 | 213 | 502 |
| Agra | 807 | 55 | 947 | 1,205 | — | 92 | 125 | 212 | 47 |
| Oudh | 249 | 9 | 205 | 34 | — | 20 | 11 | 174 | 15 |
| Punjab | 809 | 37 | 320 | 1,042 | — | 57 | 35 | 8 | 51 |
| North-West Frontier Province. | 66 | 5 | 26 | 24 | — | — | — | — | 7 |
| Sind | 382 | 5 | 3 | 193 | — | 1 | 6 | — | 8 |
| Bombay | 1,425 | 164 | 54 | 2,855 | — | 108 | 1 | — | 77 |
| Central Provinces | 1,905 | 42 | 24 | 1,140 | — | 85 | — | — | 10 |
| Berar | 341 | 48 | 1 | 2,766 | — | 22 | — | — | 13 |
| Madras | 2,145 | 371 | 126 | 1,581 | — | 81 | 221 | — | 140 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 18 | 1 | — | 33 | — | — | — | 1 | — |
| Total | 13,096 | 1,070 | 2,491 | 11,104 | 2,146 | 625 | 654 | 608 | 935 |

III.

| —— | Tea. | Coffee. | Fodder Crops. | Orchards and Garden Produce. | All other Crops. | | Total Area Cropped during the Year. | Area Cropped more than once. | Net Area Cropped during the Year. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Food. | Non-Food. | | | |
| Upper Burma | 2 | — | 27 | 39 | 36 | 8 | 4,311 | 358 | 3,953 |
| Lower Burma | — | — | 2 | 340 | 39 | 75 | 7,452 | 5 | 7,447 |
| Assam | 340 | — | 37 | 359 | 31 | 116 | 5,431 | 358 | 5,073 |
| Bengal | 135 | — | 65 | 1,036 | 1,199 | 1,061 | 60,962 | 10,745 | 50,217 |
| Agra | 8 | — | 776 | 266 | 139 | 60 | 31,385* | 5,153 | 26,232 |
| Oudh | — | — | 101 | 94 | 57 | 4 | 11,874 | 2,708 | 9,166 |
| Punjab | 10 | — | 1,845 | 127 | 343 | 16 | 26,240* | 3,535 | 22,705 |
| North-West Frontier Province | — | — | 52 | 8 | 37 | 13 | 2,462* | 437 | 2,025 |
| Sind | — | — | 1 | 35 | — | 39 | 3,459 | 258 | 3,201 |
| Bombay | — | — | 17 | 128 | — | 5 | 24,374 | 636 | 23,738 |
| Central Provinces | — | — | 261 | 84 | 32 | 10 | 17,779 | 896 | 16,883 |
| Berar | — | — | — | 28 | — | 1 | 7,265 | 26 | 7,239 |
| Madras | 11 | 50 | 217 | 768 | — | 341 | 30,683 | 3,789 | 26,894 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | — | 60 | 2 | 3 | 5 | — | 507 | 38 | 469 |
| Total | 506 | 110 | 3,403 | 3,315 | 1,918 | 1,739 | 234,184 | 28,942 | 205,242 |

* These figures show area sown, and exceed the aggregate of the preceding columns (which, in the case of these provinces take into account the result of sowing) by half a million acres in Agra, the same amount in the North-West Frontier Province, and 5¾ million acres in the Punjab.

AGRICULTURAL PRODUCE.

Regarding some of the more important staples of Indian agriculture, particulars for the year 1903–04 are given below. The information and tabular statements are taken from the estimates published by the Government of India, which in many cases do not correspond exactly with the figures given above for the year 1902–03.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

| | Average Wheat Area for preceding Five Years. | Areas Cultivated with Wheat in | |
|---|---|---|---|
| | | 1902–03. | 1903–04. |
| | Acres. | Acres. | Acres. |
| Punjab | 6,824,000 | 6,995,200 | 7,765,700 |
| North-West Frontier Province | — | 822,900 | 994,100 |
| United Provinces | 6,357,800 | 6,909,500 | 7,885,000 |
| Bengal | 1,521,900 | 1,417,000 | 1,508,600 |
| Central Provinces | 2,197,260 | 2,284,900 | 2,912,200 |
| Bombay | 1,715,400 | 1,797,300 | 1,924,900 |
| Sind | 468,900 | 331,600 | 552,000 |
| Berar | 274,600 | 217,000 | 452,600 |
| Hyderabad | 739,100 | 652,000 | 1,134,700 |
| Rajputana | 822,800 | 818,400 | 1,115,300 |
| Central India | 927,000 | 840,600 | 1,522,300 |
| Mysore | 3,500 | 5,100 | 5,700 |
| Total | 21,852,200 | 23,091,500 | 27,773,100 |

It was an exceptionally favourable season for wheat in 1903–04, and the good crop of the preceding year was exceeded by some 20 per cent., both in area and in yield. The total harvested area is still below that of the early nineties, but the record was passed by nearly a million acres in the United Provinces, and by a third of a million acres in the Punjab. In the Punjab and in Sind there was an exceptionally good yield; in the United Provinces the season was not quite so good as that of 1902–03; in Bengal it was about the same; the crop was least successful in Bombay. The estimated out-turn of the year in the chief wheat-growing provinces is given in the margin, in comparison with the yield of 1902–03. The total estimate for India was 9,387,500 tons, against 7,766,100 tons in the preceding year, and an average of 6,250,000 tons for the five preceding years. Wheat exports are subject to great fluctuations. The figures are as follows :—

| | 1902–03. | 1903–04. |
|---|---|---|
| | Tons. | Tons. |
| Punjab | 2,314,700 | 3,076,200 |
| United Provinces | 2,972,500 | 3,230,000 |
| Central Provinces | 666,600 | 750,100 |
| Bombay | 532,600 | 515,800 |
| Bengal | 485,900 | 527,800 |
| Central India | 220,600 | 360,900 |
| North-West Frontier Province. | 234,600 | 302,100 |
| Rajputana | 190,800 | 294,400 |

| | | | |
|---|---|---|---|
| 1,053,000 | tons in | 1885–86 | 976,000 tons in 1898–99 |
| 689,000 | „ | 1889–90 | 485,000 „ 1899–1900 |
| 1,515,000 | „ | 1891–92 | 2,500 „ 1900–01 |
| 500,000 | „ | 1895–96 | 515,000 „ 1902–03 |
| 95,000 | „ | 1896–97 | 1,296,000 „ 1903–04 |

OIL SEEDS.

The area under, and the yield of, the main oil-seed crops for all India may be approximately given thus :—

| | | Average for preceding Five Years. | 1902–03. | 1903–04. |
|---|---|---|---|---|
| Area in acres | Linseed, rapeseed, and mustard. | 5,505,200 | 6,014,100 | 7,126,600* |
| | Sesamum oil-seeds | 2,627,000 | 3,733,700 | 4,006,400 |
| | Total | 8,132,200 | 9,747,800 | 11,133,000 |
| Yield in tons for all seeds, so far as reported | | 1,146,700 | 1,398,800 | 1,542,800 |

* This figure does not include an area in the United Provinces, conjecturally estimated at 3 million acres, on which the crop is grown mixed with other crops. The yield of that area is included in the figure given.

AGRICULTURAL PRODUCE.

The area under these crops was specially large in 1903–04, and in most provinces they were grown under favourable conditions; the rape-seed crop in the Punjab yielded exceptionally well, and Bengal had a good average crop, both of rape and linseed. The sesamum crop was injured in some provinces by excessive rainfall, and the yield only slightly exceeded that of 1902–03. The total amount and value of the oil-seeds exported in the last two years is shown in the margin. The decline in value, against an increase in quantity, was due to the overstocked condition of the market, which caused a general and important fall in prices. The sudden development and expansion of the trade in cotton-seed noted in last year's Statement was not maintained, though the exports were still large in view of the recent origin of the trade. Earthnuts were exported in much larger quantity from Madras, and in addition to the figure given in the marginal table, which relates to the trade of British India only, there is a large export of groundnuts from Pondicherry to France. The latest figures available, those for 1902–03, show an export of 53,400 tons, valued at £485,000. This crop now seems to have recovered from the serious check which it recently suffered owing to disease and drought. The total area sown with groundnut in Madras and Bombay was 461,800 acres, against 491,100 acres in 1902–03 and an average of 278,700 acres in each of the preceding five years.

| | 1902–03. | | 1903–04. | |
|---|---|---|---|---|
| | Quantity. | Value. | Quantity. | Value. |
| | Tons. | £ | Tons. | £ |
| Linseed | 316,400 | 3,794,000 | 430,800 | 3,829,400 |
| Rape-seed | 196,300 | 1,647,000 | 217,100 | 1,689,400 |
| Cotton-seed | 198,700 | 674,000 | 133,900 | 445,500 |
| Sesamum | 186,600 | 1,940,000 | 175,600 | 1,619,300 |
| Castor-seed | 87,600 | 614,000 | 78,300 | 461,300 |
| Earthnuts | 51,800 | 477,000 | 96,100 | 757,900 |
| Other sorts | 72,300 | 776,000 | 102,300 | 874,400 |
| Total | 1,109,700 | 9,922,000 | 1,234,100 | 9,677,200 |

RICE.

The area and yield of the Bengal autumn and winter rice crops were much below the figures of the preceding year, and though the crops of Madras and Burma, especially the latter, were good, the total yield of the crop in 1903–04 was not good. The winter crop of Bengal is by far the largest factor in the statistics for the three provinces mentioned in the table below, and covered, in the year under report, an area of 27½ million acres, compared with 29¾ millions in the preceding year. The figures estimated for the last two years are as follows:—

| | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of preceding Five Years. | 1902–03. | 1903–04. | Average of preceding Five Years. | 1902–03. | 1903–04. |
| Bengal | 38,186,300 | 37,553,700 | 35,096,400 | 17,510,000 | 17,949,000 | 15,915,000 |
| Madras | 6,796,100 | 7,734,800 | 8,178,300 | 2,447,000 | 2,874,000 | 3,071,000 |
| Burma (15 districts) | 6,113,400 | 6,521,300 | 6,660,900 | 2,550,000 | 2,651,000 | 3,221,000 |

Other provinces, notably Assam, the United Provinces, and the Central Provinces, produce a large quantity of rice, a considerable proportion of their cultivable area (generally amounting to about 20 million acres) being thus employed, as may be seen from the table given earlier in this chapter. The quantity of rice and rice-flour exported from India and Burma beyond the sea in 1903–04 was 2,250,000 tons, which was rather less than the total of the preceding year. About 74 per cent. of the exports went from Burma, which also exported 74,800 tons of paddy and 120,000 tons of husked rice to other provinces and states in India. It is estimated that Burma has this year (1905) an exportable surplus of 1,936,400 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury a net sum of £780,900 in 1903–04, against £823,300 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

AGRICULTURAL PRODUCE.
COTTON.

The area under cotton in India is returned and estimated as follows :—

| — | Average Cotton Area for preceding Five Years. | 1902–03. | 1903–04. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Madras (ryotwari villages only) | 1,388,000 | 1,581,000 | 1,791,000 |
| Bombay, Sind, and Bombay Native States | 4,416,000 | 4,982,000 | 5,385,000 |
| United Provinces | 1,010,000 | 1,239,000 | 841,000 |
| Punjab and North-West Frontier Province | 995,000 | 1,221,000 | 1,294,000 |
| Central Provinces | 757,000 | 1,136,000 | 1,247,000 |
| Berar | 2,359,000 | 2,766,000 | 2,846,000 |
| Nizam's Dominions | 1,615,000* | 2,359,000 | 2,641,000 |
| Burma | 147,000 | 149,000 | 152,000 |
| Central India | 488,000 | 591,000 | 772,000 |
| Rajputana | 400,000 | 457,000 | 395,000 |
| Bengal | 150,000 | 100,000 | 96,000 |
| Assam | — | — | 31,000 |
| Mysore | — | — | 58,000 |
| Total | 13,725,000 | 16,581,000 | 17,549,000 |

* Incomplete.

If there be included a rough estimate of 121,000 acres under cotton in the zamindari area of Madras, the total area of the crop is 17⅔ millions of acres, more than a million acres above the area of 1902–03, which was then the highest recorded; and if those tracts be excluded for which returns are now made for the first time, the increase is 880,000 acres, although there was a shrinkage of 400,000 acres in the United Provinces caused by the late arrival of the monsoon. Owing, however, to the unfavourable nature of the season in those provinces, as well as in Berar, the Central Provinces, and Hyderabad, the estimated yield, excluding Assam and Mysore, which made returns for the first time, is approximately the same as in the preceding season, namely 2⅞ million bales. The average yield for the last five years is returned as about two million bales, but the figures for these years are incomplete in several respects.

The exports of raw cotton from India were—

| | | | |
|---|---|---|---|
| 1894-95 | 3,387,000 | cwts., valued at | £5,806,000 |
| 1896–97 | 5,216,000 | „ „ | 8,647,000 |
| 1897–98 | 3,723,000 | „ „ | 5,914,000 |
| 1898–99 | 5,411,000 | „ „ | 7,459,000 |
| 1899–1900 | 4,373,000 | „ „ | 6,617,000 |
| 1900–01 | 3,576,000 | „ „ | 6,752,000 |
| 1901–02 | 5,700,000 | „ „ | 9,617,000 |
| 1902–03 | 6,045,000 | „ „ | 9,838,000 |
| 1903–04 | 7,931,000 | „ „ | 16,251,000 |

It is not necessary here to dwell on the efforts which are being made by the Government of India to classify the Indian cottons, to introduce the most suitable varieties, and to extend the area under cotton cultivation, since full information was given in two papers which were presented to Parliament during 1904, viz., "The Improvement of Indian Cotton" (Cd. 1982), and Professor Dunstan's "Report on Cotton Cultivation in the British Empire and in Egypt" (Cd. 2020).

AGRICULTURAL PRODUCE.

TEA.

The following is an estimate of the cultivation and the production of tea in British India and Travancore during recent years; no figures are available regarding its cultivation in Cochin State :—

| | Area under Tea, in Acres (Mature and Immature Plants). | | | Production of Tea in Lbs. | | |
|---|---|---|---|---|---|---|
| | 1901. | 1902. | 1903. | 1901. | 1902. | 1903. |
| Bengal - - - | 135,129 | 135,158 | 135,956 | 46,204,000 | 46,028,000 | 50,888,000 |
| Assam - - | 338,186 | 339,640 | 338,278 | 134,896,000 | 132,117,000 | 145,199,000 |
| Madras - - - | 6,184 | 6,613 | 7,047 | 827,000 | 1,067,000 | 1,124,000 |
| United Provinces - | 8,252 | 8,121 | 8,047 | 2,420,000 | 2,139,000 | 2,071,000 |
| Punjab - - | 10,235 | 9,324 | 9,399 | 2,087,000 | 1,616,000 | 1,915,000 |
| Travancore - - | 25,279 | 24,880 | 24,580 | 4,608,000 | 5,360,000 | 7,242,000 |
| Burma - - | 1,502 | 1,521 | 1,520 | 261,000 | 262,000 | 271,000 |
| Total - - | 524,767 | 525,257 | 524,827 | 191,303,000. | 188,589,000 | 208,710,000 |

These figures show a slight reduction of the area under tea, and there is reason to believe that the real reduction was greater than appears from them, and amounted to more than 4,000 acres. During some recent years, notably 1897 and 1898, the growth of the tea area was very rapid, but the present tendency is towards restricting its further extension, under the discouragement of low prices. The area under mature plants increased by nearly 14,000 acres, owing to recent extensions coming into full bearing; and the newly planted area was, therefore, less than 4 per cent. of the whole. The total area under tea was 85 per cent. greater than it was in 1885. The output was 192 per cent. greater, and showed, according to the returns, an increase of 20 million lbs. in 1903; but here again it is suspected that the figures are not complete, as the exports to foreign countries by sea increased by $25\frac{4}{5}$ million lbs. Of the output shown above, rather more than 5 million lbs. was green tea in 1903. Nearly nine-tenths of the total tea cultivation is limited to the provinces of Assam and Bengal. It may be observed that the small tea production of Burma may be neglected so far as the tea trade generally is concerned, because most of the tea made is eaten in the form of pickled tea. The tea gardens of India are reported to have given employment during 1903 to 478,000 persons permanently and 92,800 temporarily. In spite of the enlarged production, which surpassed all previous records, the average prices of tea at Calcutta during the year show a general rise of some importance over the low figures of the last three years. That the average price for so large a production should have advanced by nearly one-fifth of a penny for tea sold in London, by seven-twelfths of a penny for the Calcutta sales, and by nearly one-ninth of a penny according to the declared value of the exports from India, is significant of the advance in developing outside markets and the relief afforded by the increasing manufacture of green teas in India and Ceylon. The exports of Indian tea by sea during the last three years are returned as follows :—

| | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom - - - - - | 159,014,000 | 152,896,000 | 170,187,000 |
| „ Canada - - - - - | 1,059,000 | 5,554,000 | 8,576,000 |
| „ Australia - - - - - | 7,478,000 | 4,569,000 | 6,402,000 |
| „ China, Treaty Ports - - - | 225,000 | 379,000 | 5,702,000 |
| „ Russia - - - - - | 1,625,000 | 3,968,000 | 4,547,000 |
| „ Persia - - - - - | 2,531,000 | 3,254,000 | 2,171,000 |
| „ Turkey in Asia - - - - - | 2,626,000 | 3,273,000 | 2,830,000 |
| „ United States - - - - - | 1,089,000 | 2,672,000 | 1,528,000 |
| „ Other Countries - - - - - | 4,038,000 | 4,859,000 | 5,217,000 |
| Total - - - | 179,685,000 | 181,424,000 | 207,160,000 |

The total exports of Indian tea in 1886-87 were $78\frac{3}{4}$ million lbs. only. During the year under report the exports to the United Kingdom, Canada

AGRICULTURAL PRODUCE.

and Russia had a remarkable increase; for the amount shown under the head of Russia does not cover the large amounts shipped for transit by the Siberian railway through Dalny and Port Arthur, which come under the heading of "China Treaty Ports," and these amounted to 4,905,000 lbs. There were also nearly 2 million lbs. of tea under the head of exports by land, but the greater part of this comes under the head of exports to Kashmir.

According to the British returns the tea imported into the United Kingdom for home consumption or re-export has come from China, India and Ceylon in the following proportions :—

| In the Year | From China. | From India. | From Ceylon. |
|---|---|---|---|
| 1865 | 93 per cent. | 2 per cent. | 0 per cent. |
| 1875 | 86 „ | 13 „ | 0 „ |
| 1885 | 66 „ | 30 „ | 2 „ |
| 1895 | 16 „ | 46 „ | 32 „ |
| 1902 | 6 „ | 54 „ | 36 „ |
| 1903 | 7 „ | 55 „ | 31 „ |
| 1904 | 9 „ | 55 „ | 31 „ |

The import duty on tea entering the United Kingdom was raised from 6*d.* to 8*d.* a pound after the end of the year under report, and it is not therefore within the scope of this Statement to discuss the effect of the increased duty.

COFFEE.

Cultivation of coffee is restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The area reported as under coffee at the end of 1903, with corresponding figures for the two preceding years, is given below; but the figures are not of much value, as information is in some cases withheld by planters, especially in Madras :—

| — | 1901. | 1902. | 1903. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Coorg | 65,732 | 59,417 | 50,246 |
| Madras | 36,722 | 34,950 | 35,870 |
| Mysore | 126,735 | 114,660 | 111,854 |
| Travancore and Cochin | 7,022 | 6,217 | 6,334 |
| Burma, Assam, &c. | 446 | 373 | 329 |
| Total | 236,657 | 215,617 | 204,633 |

The prices of coffee as declared for export purposes have fallen from Rs. 75½ per cwt. in 1894 to Rs. 47 in 1903–04. There is no local market for coffee, and the competition of cheap Brazilian coffee has affected the price in the consuming markets. In spite of anticipations of a smaller supply of Brazilian coffee there was no improvement in 1903 in prices, as the stocks held were so large; but an impetus was given to the export trade, which may be taken as the best criterion of the progress of the coffee industry, very little coffee being consumed in India. The amount of exports is shown below :—

| — | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom | 13,058,000 | 17,416,000 | 17,075,000 |
| „ France | 11,287,000 | 8,311,000 | 11,717,000 |
| „ other Countries | 4,220,000 | 4,419,000 | 3,828,000 |
| Total | 28,565,000 | 30,146,000 | 32,620,000 |

The returns show that 25,400 persons were employed permanently, and 55,000 temporarily, on the coffee estates.

AGRICULTURAL PRODUCE. CINCHONA.

There are no trustworthy statistics of the area of cinchona cultivation outside the Government plantations, but it is to be noted that during the last five years there has been a steady fall in the quantity of cinchona bark exported from India, which was $3\frac{1}{4}$ million lbs. in 1899–1900, but had sunk to $1\frac{1}{10}$ million lbs. in 1903–04. The export has, however, varied widely in earlier years.

On the Government cinchona plantations of the Darjeeling district in Bengal 170 acres were planted during 1903–04. The rainfall was about up to the average, and the planting season was well advanced, with the result that the number of trees in the plantations was increased by about 291,000 during the year, and stood at nearly $3\frac{1}{3}$ millions at the end of it. The quantity of dry bark harvested on the plantations was 306,700 lbs., and the purchases of bark from private plantations amounted to 119,600 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 421,500 lbs. of quinine-yielding barks, producing 12,314 lbs. of sulphate of quinine, and 290 lbs. of sulphate of cinchonidine; and 52,400 lbs. of mixed *succirubra* and hybrid barks, from which 3,800 lbs. of cinchona febrifuge were extracted. The issues of quinine rose to 12,000 lbs., but those of cinchona febrifuge fell to 3,500 lbs., owing partly to the cessation of the demand for South Africa, partly to a smaller consumption by the Indian public. The quinine supplied to the public is sold at post offices in 5-grain packets; the febrifuge is sold at the factory; but a large part of the issues are made to Government officers for dispensaries and medical depôts.

The rainfall in the Madras cinchona plantations was above the average, and some damage was done to young plants; but the stock of trees in the plantations was increased by over 200,000, amounting to $2\frac{1}{3}$ millions. The year's crop amounted to 116,300 lbs. of bark, besides 431,200 lbs. purchased from private plantations. The amount of bark worked up in the factory was 486,000 lbs., consisting for the most part of purchased bark. The produce was 16,100 lbs. of sulphate of quinine and 5,900 lbs. of cinchona febrifuge. The machinery recently installed worked well, but a larger water supply is required, and is being arranged for, in order to keep up work continuously through the year. From this factory are supplied the requirements of Madras, Bombay, the United Provinces, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore; the issues during the year were 15,040 lbs. of quinine and 3,359 lbs. of the febrifuge. The sale of quinine at post offices in the Madras Presidency and elsewhere showed a satisfactory increase in the year under report, and a proposal for selling 7-grain powders was under consideration. Quinine was issued to local fund and municipal dispensaries at the rate of Rs. 13 per lb., and the febrifuge was sold to the public at the rate of about Rs. 12 per lb.

JUTE.

In Bengal, where nearly the whole of the jute crop is grown, the rainfall was weak at the beginning of the sowing season of 1903, but it improved later, and the collector's reports estimate the area sown as 2,209,300 acres, with a yield equal to 87 per cent. of a normal out-turn. The total yield, in bales of 400 lbs., was estimated at $6\frac{1}{3}$ million bales in 1903, against $5\frac{1}{4}$ millions in 1902, and an average of $5\frac{2}{3}$ millions in each of the last five years. These figures do not include the jute production of Assam, estimated at 90,000 bales in 1903, and of Cooch Behar, 50,000 bales, which would increase the total estimate to $6\frac{1}{2}$ million bales. The fluctuations of the jute export trade during recent years have been as follows:—

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | Value. |
| | Cwts. | £ | £ | £ |
| 1883–84 | 7,018,000 | 3,062,000 | 890,000 | 3,952,000 |
| 1891–92 | 8,532,000 | 4,566,000 | 1,675,000 | 6,241,000 |
| 1897–98 | 15,023,000 | 6,754,000 | 3,954,000 | 10,708,000 |
| 1898–99 | 9,865,000 | 4,628,000 | 3,866,000 | 8,494,000 |
| 1900–01 | 12,415,000 | 7,245,000 | 5,243,000 | 12,488,000 |
| 1901–02 | 14,755,000 | 7,865,000 | 5,807,000 | 13,672,000 |
| 1902–03 | 13,036,000 | 7,418,000 | 6,013,000 | 13,431,000 |
| 1903–04 | 13,721,000 | 7,813,000 | 6,313,000 | 14,125,000 |

AGRICULTURAL PRODUCE.

Of the raw jute exports in 1903–04, over 43 per cent. went to the United Kingdom, 19 per cent. to Germany, more than 14 per cent. to the United States, and 10 per cent. to France.

INDIGO.

In spite of an unfavourable opening, the season was on the whole good for indigo in Bengal, but the area continued to contract. The area under indigo in the four indigo growing provinces, as reported, is given in the margin. It will be seen that, if allowance be made for an under-statement of some thirty or forty thousand acres, which is believed to have been made in the United Provinces, Bengal was the only province in which there was a decline in 1903. The estimated yield, in Bengal as well as in the other provinces, is much higher than that of 1902, when the season was unfavourable. The out-turn for the four provinces together is given as 106,000 cwt., compared with 79,200 cwt. in 1902 and an average of 145,000 cwt. for each of the preceding five years; and this estimate may have been exceeded. The total exports of recent years have been :—

| — | Average of preceding Five Years. | 1902. | 1903. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Bengal - - | 431,100 | 255,500 | 249,700 |
| United Provinces - | 256,400 | 135,800 | 104,000 |
| Punjab - - - | 90,100 | 42,000 | 76,700 |
| Madras - - | 260,400 | 212,200 | 279,000 |
| Total - - | 1,038,000 | 645,500 | 709,400 |

| | Cwts. | | £ | |
|---|---|---|---|---|
| 1888–89 - - - | 142,000 | valued at | 2,633,000 | Exports by sea, besides a small quantity annually exported across the land frontiers of India. |
| 1890–91 - - - | 118,000 | „ | 2,049,000 | |
| 1895–96 - - - | 187,000 | „ | 3,370,000 | |
| 1896–97 - - - | 170,000 | „ | 2,914,000 | |
| 1898–99 - - - | 135,000 | „ | 1,980,000 | |
| 1900–01 - - - | 102,000 | „ | 1,424,000 | |
| 1901–02 - - - | 90,000 | „ | 1,235,000 | |
| 1902–03 - - - | 65,000 | „ | 804,000 | |
| 1903–04 - - - | 60,400 | „ | 717,500 | |

SUGAR.

The area under sugar in India is estimated as follows for the provinces mentioned :—

| — | Area in Acres. | | | Out-turn in Tons. | |
|---|---|---|---|---|---|
| | Average of Five Preceding Years. | 1902-03. | 1903-04. | 1902-03. | 1903-04. |
| Bengal - - - | 802,000 | 663,500 | 645,400 | 681,600 | 667,300 |
| United Provinces - - | 1,215,000 | 1,151,800 | 1,070,600 | 904,100 | 876,700 |
| Punjab and North-West Frontier Province. | 366,000 | 336,000 | 348,300 | 367,500 | 272,100 |
| Madras - - - | 46,000 | 46,500 | 41,800 | 93,400 | 83,700 |

There was a small recovery in the area under sugar cane in the Punjab and North-West Frontier Province, but elsewhere the downward tendency of previous years continued. In the United Provinces the area was, with one exception, the smallest on record, the rainfall having been deficient during the planting season, and the crop having also suffered from heavy storms. In Bengal, however, the yield was estimated at 94 per cent. of the normal. The out-turn in the Punjab shows a large decline, owing to a rectification of the method of estimating it, which was unduly liberal in former years. In reality, that province, as well as Madras, had about an average output of sugar. There is also a certain amount of sugar cultivation in most of the other provinces, and the total area under sugar in 1902–03 was given as nearly 2½ millions of acres. The yield is generally something rather less than a ton of raw sugar per acre. The imports of sugar, including

confectionery and molasses, during recent years are given as follows, the figures representing for the most part refined sugar :— AGRICULTURAL PRODUCE.

| | 1896–97. | 1898–99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| From Austria-Hungary | 5,775 | 53,187 | 38,891 | 66,065 | 112,897 | 44,401 | 14,963 |
| „ Germany - - | 37,940 | 20,698 | 3,026 | 20,100 | 28,857 | 7,284 | 365 |
| „ Mauritius - | 74,442 | 105,205 | 88,667 | 124,476 | 109,158 | 118,309 | 144,156 |
| „ China - - | 6,965 | 9,284 | 15,850 | 24,372 | 9,138 | 28,430 | 17,449 |
| „ Java - - | 4,873 | 8,125 | 12,909 | 11,262 | 16,033 | 28,683 | 66,777 |
| „ other Countries - | 4,125 | 6,776 | 8,700 | 17,565 | 21,654 | 74,686 | 72,982 |
| Total - | 134,120 | 203,875 | 168,043 | 263,840 | 297,737 | 273,110 | 316,692 |

The legislation under which countervailing duties were imposed on bounty-fed sugar has been noticed in a former chapter under the head of "Customs." The chief features of the table given above are the rise and decline of imports from Austria-Hungary, the practical cessation of imports from Germany, the steady increase in the imports from Java, and the rise of the figures under "other countries." In the year 1903–04, the United Kingdom contributed 33,287 tons to the total under the latter heading.

## CIVIL VETERINARY DEPARTMENT.

Early in the year 1903–04 the entire control of horse, mule and donkey breeding in certain districts, whether with Imperial or District Board stallions, was transferred from the Civil Veterinary Department to the Army Remount Department; the work of the Civil Department being confined, as regards those districts, to questions connected with cattle, except in so far as horses may be treated in the dispensaries maintained by the Department. The districts in question are those, situated in the Punjab, Baluchistan, Sind, and the United Provinces, in which horse or mule breeding specially flourishes. Outside them, the Civil Department controls breeding operations of every sort. Government stallions will be allotted only to the selected districts, but the stallions belonging to District Boards in the non-selected districts are controlled by the Department. Of these there were on the register, at the end of 1903–04, 32 horse stallions, 86 ponies, and 75 donkeys, a large proportion in each case being located in the southern portions of the Punjab. The district horse and donkey stallions covered 5,700 mares in the year under report, the donkey stallions over 300 pony mares and 162 donkeys. Horse, mule and donkey breeding.

As regards cattle, the operations of the Department are intended to be directed towards improvement of the breeds, investigation of diseases, and maintenance of veterinary dispensaries. Proposals have been under consideration for the establishment of bull-rearing runs throughout India, by which it is believed that the recognised breeds could be improved or maintained, and measures have been taken in several provinces to give effect to the scheme. The most important centre of cattle-breeding is the Hissar Cattle Farm, which was taken over by the Civil Veterinary Department for a seven years' period in 1898–99. The farm contains 11 herd bulls and 736 cows, selected with great care as good specimens of the Harriana and Nagore breeds, besides a large number of young stock and cultivation bullocks, and some mules, donkeys and zebras. Thirty-seven bulls were issued from the farm during the year, nearly all of them having been purchased by the Punjab Government. They were carefully reared, pure-bred Harriana cattle, and are sure to improve rapidly the stock of the districts in which they are placed. By the end of the period of seven years, the farm will be able to supply from fifty to one hundred true-bred bulls annually to the districts at prices ranging from £10 to £13. Mule and donkey breeding operations are also carried on at the farm; and the cultivation has been greatly improved. Rapid progress has been made throughout all branches of the farm, which is now in a satisfactory financial position. A large number of cattle fairs and shows were inspected and favourable reports were generally given of the classes of animals shown. Prizes are offered both out of Imperial and local funds. Cattle-breeding.

CIVIL VETERINARY DEPARTMENT.

Arrangements were being made to introduce and work the Glanders and Farcy Act in Calcutta, where the disease is very prevalent. Cases dealt with by officers of the Department amounted to 72 in all India; but this is a mere fraction of the probable actual number which occurred.

Horse and cattle disease.

Among cattle, a considerable number of deaths from rinderpest were reported in Bengal, Burma and Madras, and the number of deaths from disease in all provinces is returned at 258,400, a figure which the Head of the Department considers to be approximately correct. Very material progress was made with preventive inoculation in each province. This practice is being introduced whenever possible, and it is generally found that villagers have no objection to it when its advantages are explained to them. In the Darjeeling and Chittagong hill tracts, only 3·25 per cent. of the injected animals succumbed in affected herds, whereas in an ordinary outbreak of rinderpest among such cattle from 90 to 98 per cent. usually die. The number of outbreaks of rinderpest dealt with was 390, and 47,360 cattle were immunised, of whom only 280 died. So with regard to anthrax inoculation; 48 outbreaks were dealt with, 6,385 were animals immunised, and only 33 died. A serum for hæmorrhagic septicæmia and one for charbon symptomatique are being prepared at the Muktesar Laboratory, and much other good work was done. The Bacteriologist and part of his staff conduct operations at Bareilly during part of the year. Veterinary dispensaries, attended by veterinary assistants, have been established in most provinces. The number of veterinary assistants under the Civil Veterinary Department was 308.

Veterinary instruction.

The total number of students who passed out from the various veterinary colleges and schools was 103, of whom 50 had gone through a three years' course, the remainder having taken the salutri's two-year course at Bombay or having passed through the Ajmere College or Burma School. The Ajmere College was to be amalgamated with the Punjab College from April 1904, when the course was to become a three years' one. A veterinary college was started in temporary premises in the Madras Presidency, at first with only 20 students. When the College has been properly equipped it will be one of the best in India. There is a great demand for veterinary graduates and assistants, and good men find no difficulty in getting suitable employment.

## MINERAL RESOURCES AND MINING.

MINERAL RESOURCES.

A review of the mineral production of India during the six years, 1898 to 1903, by Mr. Holland, Director of the Geological Survey of India, has recently been published among the records of that Survey. The following notes, which are based on it, present only a very brief and imperfect summary of the large amount of information which it contains.

There has been a great increase in the value of the output of all minerals, which may be roughly stated as £5,000,000 in 1903 against £3,500,000 in 1898. But while there has been remarkable progress in developing the few minerals which are consumed by direct processes, such as coal, gold, &c., the minerals and metalliferous ores which depend for their successful exploitation on the utilisation of bye-products have, necessarily in the circumstances of the country's indutries, been neglected.

COAL.

In the case of coal, the Indian out-put has risen from a little over 4 million tons in 1897 to 7½ million tons in 1903, the Bengal mines giving an increasing proportion of the total. The figures are given below. It will be noticed that the output in 1903 is only slightly higher than that of 1902,

owing partly to a check in the production at the Singareni mine in Hyderabad, by a serious mining accident in June 1903. MINERAL RESOURCES.

| | Coal produced in | | | | | |
|---|---|---|---|---|---|---|
| | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. |
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| Bengal - - | 3,622,100 | 4,035,300 | 4,978,500 | 5,487,600 | 6,259,200 | 6,361,200 |
| Hyderabad - - | 394,600 | 401,200 | 469,300 | 421,200 | 455,400 | 362,700 |
| Assam - - | 200,300 | 225,600 | 216,700 | 254,100 | 221,100 | 239,300 |
| Rewah State - - | 134,700 | 164,600 | 164,500 | 164,400 | 171,500 | 193,300 |
| Central Provinces - | 149,700 | 156,600 | 172,800 | 191,500 | 197,000 | 159,200 |
| Elsewhere - - | 106,800 | 110,000 | 116,900 | 116,900 | 120,300 | 122,700 |
| Total. - - | 4,608,200 | 5,093,300 | 6,118,700 | 6,635,700 | 7,424,500 | 7,438,400 |

During the six years the exports of coal have overtaken, and are now far ahead of, the imports. The railways have reduced their purchases of foreign coal almost to vanishing point, while at the same time their demand has formed a gradually shrinking fraction of the total output of the Indian mines, a fact which points to the development of other coal consuming industries. Of the coal which is imported, the greater part comes from the United Kingdom. The exports go for the most part to Ceylon and the Straits Settlements.

IRON.

Although there are promising deposits of iron ore in India, only one attempt to manufacture iron on European lines, namely, the Barakur Iron and Steel Company's undertaking, has hitherto been successful. That company at present has manufactured pig iron only, but arrangements have been made for starting the manufacture of steel. Prospecting operations on a large scale have, however, been carried on recently in the Central Provinces, the results in one area being unfavourable and in the other undetermined at the time when the report was written. The Native charcoal-iron industry still holds its own outside the range of the railways which distribute the cheap imported material. The iron ore raised in Bengal in 1903 is stated as 61,300 tons, and there are small quantities returned from the Central Provinces and other areas. The large and increasing imports of iron and steel into India seem to show that there is room in the country for a large iron manufacturing industry.

GOLD.

The production of gold has shown a steady increase, from 390,600 ounces, valued at £1,568,000, in 1897, to 603,200 ounces, valued at £2,302,500, in 1903. Nearly all the output comes from the Kolar gold fields in the Mysore State, though promising work in reef mining has recently been commenced in Hyderabad and in the Dharwar district of Bombay, while preparations are also being made to extend dredging operations on the Upper Irrawaddy in Burma.

MANGANESE.

The rapid rise of manganese ore mining is probably just now the most conspicuous feature of the mineral industry in India. Starting in the year 1893, the production has risen to 171,800 tons in 1903. Up to 1899, the ore came exclusively from Madras, but since then a still larger quantity (101,500 tons in 1903) has been obtained from the Central Provinces, where the ore bodies are very rich and pure. Deposits have also been discovered recently in the Bombay Presidency, while a small quantity came from the Gwalior State in the year under report.

MICA.

India supplies something like half the world's demand for mica. The returns of the output are untrustworthy, but the amount exported in 1903–04 was 21,500 cwt., of which about 18,000 cwt. came from Bengal, the chief seat of the industry. It is, however, to be observed that the Indian producer has not secured a satisfactorily large share of the recently increased trade in this mineral.

RUBIES.

The ruby industry in Burma has been prosperous during recent years, the yield of rubies in the year 1903 being stated as 231,600 carats. The Ruby Mines Company has prospered under the revised terms of lease granted by Government in 1898, and the receipts in 1903 are given as £98,600.

MINERAL RESOURCES: PETROLEUM.

The petroleum industry has advanced at a greater rate than any other of the Indian mineral industries in recent years, and the year under report saw the greatest advance of any, as the production rose from 56,607,700 gallons in 1902 to 87,859,100 gallons in 1903. The internal production, which came, all but $2\frac{1}{2}$ million gallons, from Burma, for the first time almost equalled the imports ($88\frac{7}{8}$ million gallons). There is besides a considerable export of paraffin wax (43,900 cwts. in 1903–04). Of the oil imported in 1903, 80 per cent. came from Russia, and 15 per cent. from the United States, the latter trade showing a recovery from the low figures of the two preceding years. Of the Burma oilfields, that of Yenangyaung in the Magwe district still occupies by far the most important place, the Yenangyat field in the Pakokku district coming next. A new field, at Singu in the Myingyan district, came into prominence in 1903, producing over $5\frac{1}{2}$ million gallons.

Inspection of Mines.

The number of mines of all kinds coming under the Mines Act of 1901, that is to say, excluding quarries or excavations of a less depth than 20 feet, was 646 in the year under report, of which 295 were coal mines, situated chiefly in Bengal. They gave employment to 102,200 persons, of whom 66,900 were men, 30,700 women, and 4,600 children; 68,300 of them, including 20,100 women and 1,700 children, were employed below ground. The coal trade being comparatively dull during 1903, there was a decrease in the persons employed, to the number, it is stated, of 9,400 as compared with 1902. But in ordinary times the supply of mining labour is stated to be inadequate, and the position of the miners is an advantageous one. The wages at coal and gold mines are good, and those at coal mines in particular are said to have increased 50 per cent. in the last 10 years. Coal miners earn 5, 6, or 7 annas, or more, a day, and a miner and his wife may sometimes earn a rupee a day between them. At other classes of mines the rates are not so good. There were 68 fatal accidents, causing 81 deaths, during the year 1903, and 84 serious accidents, resulting in injury to 87 persons. Inspections of mines by the three members of the inspecting staff numbered 540, and 67 mines were also inspected by district and other officers.

The establishment of a school of mines was under consideration in Bengal.

## CHAPTER XI.

## PUBLIC WORKS.

PUBLIC WORKS, General.

During the year under review the Public Works Department was represented in the Council of the Governor-General by Sir A. T. Arundel, K.C.S.I. The post of Public Works Secretary was held throughout the year by Mr. A. Brereton, C.S.I.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength much the same as that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1903 and 1902:—

| — | Government of India List. | Government of Madras List. | Government of Bombay List. | Total. |
|---|---|---|---|---|
| Royal Engineer officers | 54 | 5 | 3 | 62 |
| Other military officers | 8 | — | — | 8 |
| *Civil Engineers:* | | | | |
| Appointed from Europe | 308 | 56 | 46 | 410 |
| Europeans appointed in India | 147 | 2 | 6 | 155 |
| Natives appointed in India | 71 | 20 | 27 | 118 |
| Total for 1903 | 588 | 83 | 82 | 753 |
| Total for 1902 | 588 | 86 | 79 | 753 |

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three Presidencies were as follows:—

| — | India. | Madras. | Bombay. | Total. |
|---|---|---|---|---|
| Europeans | 176 | 54 | 23 | 253 |
| Natives | 350 | 122 | 176 | 648 |
| Total | 526 | 176 | 199 | 901 |

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; it has been decided, however, to close this College at the end of October 1906, and the recruitment of certain candidates in 1905 will be made from students who have obtained one of the University degrees prescribed by the Secretary of State in Council or such diploma or other distinction in Engineering at some Institution connected with one of the Universities named as may in the opinion of the Vice-Chancellor of that University be approximately equivalent thereto. In making these appointments the Secretary of State for India will act with the advice of a Selection Committee, including at least one eminent representative of the engineering profession. It is also proposed by the Secretary of State, as at present advised, to recruit the permanent establishment in this country on the same general lines in future years. The Provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department

PUBLIC WORKS.

is an Imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1903–04 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

| | £ |
|---|---|
| Railways | 21,557,866 |
| Irrigation | 2,911,763 |
| Buildings and Roads | 555,503 |
| TOTAL | 25,025,132 |

EXPENDITURE.

| | Charged to Revenue. | Not Charged to Revenue. |
|---|---|---|
| *Railways:* | £ | £ |
| Construction | 26,550 | 4,535,105 |
| On Revenue Account | 20,697,197 | — |
| *Irrigation:* | | |
| Construction | 123,122 | 507,898 |
| Ditto from Famine Relief Grant | 144,446 | — |
| On Revenue Account | 2,556,885 | — |
| *Buildings and Roads:* | | |
| Military Works | 1,034,654 | — |
| Civil Works | 4,602,254 | — |
| TOTAL £ | 29,185,108 | 5,043,003 |

The expenditure charged against revenue includes the following items of "Interest on Debt" :—

| | £ |
|---|---|
| Railways | 4,441,781 |
| Irrigation | 994,235 |

On the 31st of March 1903, £122,563,691 of permanent public debt had been incurred on account of railways, and £25,555,952 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,004,620, of which £1,268,582 is in respect of the Great Indian Peninsula Railway, purchased in 1900.

## RAILWAYS.



A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1903 were prepared, the figures must be accepted as only approximately correct.

In the financial year 1903–04 there was a surplus of revenue over expenditure amounting to £860,669. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1903–04:—

| — | Imperial. | Provincial and Local. | England (sterling converted at £1 = Rs. 15). | TOTAL. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts). | 20,543,018 | 33,343 | 230 | 20,576,591 |
| Guaranteed companies—(Net traffic receipts). | 941,463 | — | — | 941,463 |
| Subsidised companies—(Repayment of advances of interest). | 32,590 | — | 7,222 | 39,812 |
| TOTAL - - | 21,517,071 | 33,343 | 7,452 | 21,557,866 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses - - | 10,359,100 | 19,058 | — | 10,378,158 |
| Interest on debt - - | 3,301,384 | — | 1,140,396 | 4,441,780 |
| Annuities in the purchase of railways. | — | — | 3,004,620 | 3,004,620 |
| Interest chargeable against companies on advances. | 194,327 | 2,469 | 218,885 | 415,681 |
| Interest on capital deposited by companies. | 25,506 | 3,066 | 1,193,429 | 1,222,001 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision. | 102,066 | — | — | 102,066 |
| Interest - - - - | 15,245 | — | 1,032,772 | 1,048,017 |
| Subsidised companies— | | | | |
| Land, &c. - - - - | 29,997 | 503 | — | 30,500 |
| Miscellaneous railway expenditure - | 48,082 | 6,292 | — | 54,374 |
| TOTAL - - | 14,075,707 | 31,388 | 6,590,102 | 20,697,197 |
| | | Net gain - - £ | | 860,669 |

In the figures of expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind-Punjab and Delhi, and Great Indian Peninsula railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical results of working.

2. The statistical results of working of the various classes of railways during 1904 are given in the following table. The aggregate net earnings of all Indian railways, including steam-boat service and suspense items, but excluding other indirect charges, amounted to 5·94 per cent. of the

RAILWAYS. total capital outlay on open lines, against 5·65 per cent. in the previous year:—

| Class. | Length of Line Open on the 31st December 1904. | Total Capital Outlay on Open Lines to the 31st December 1904, including Steamboat and Suspense. | Total Number of Passengers Carried. | Total Weight of Goods Carried. | Gross Earnings, including Steam-boat Service. | Working Expenses, including Steam-boat Service. | Net Earnings, including Steam-boat Service. | Percentage of net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *5′ 6″ Gauge.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by companies | 6,915·22 | 84,949,184 | 58,904,457 | 22,285,356 | 10,506,934 | 4,507,185 | 5,998,849 | |
| State lines worked by the State - | 4,840·06 | 50,714,840 | 41,376,936 | 10,797,656 | 5,831,427 | 2,876,600 | 2,954,827 | |
| Companies' lines guaranteed under old contracts. | 1,408·36 | 17,516,266 | 29,766,393 | 3,217,873 | 2,078,000 | 1,065,067 | 1,012,933 | |
| Companies' lines guaranteed under modern contracts. | 32·04 | 194,460 | 219,400 | 56,300 | 17,500 | 8,750 | 8,750 | |
| Assisted companies' lines - - | 844·16 | 4,352,484 | 5,206,042 | 913,656 | 406,202 | 191,455 | 214,747 | |
| Lines owned by Native States and worked by companies. | 709·93 | 4,719,778 | 3,087,547 | 1,415,548 | 363,524 | 135,041 | 228,483 | |
| Lines owned by Native States and worked by State railway agency. | 201·70 | 787,000 | 2,105,107 | 323,316 | 92,933 | 49,133 | 43,800 | |
| TOTAL FOR 1904 - - | 14,951·47 | 163,234,012 | 140,665,882 | 39,009,705 | 19,295,620 | 8,833,231 | 10,462,389 | 6·41 |
| TOTAL FOR 1903* - - | 14,476·91 | 159,223,200 | 127,388,000 | 33,366,000 | 17,563,067 | 8,054,267 | 9,508,800 | 5·97 |
| *3′ 3⅜″ Gauge.* | | | | | | | | |
| State lines worked by companies | 7,382·08 | 45,775,395 | 55,726,031 | 9,308,733 | 4,277,688 | 2,347,197 | 1,930,491 | |
| States lines worked by the State - | 692·63 | 4,577,089 | 5,083,400 | 1,051,500 | 571,840 | 286,933 | 284,907 | |
| Companies' lines guaranteed under modern contracts. | † | † | 120,618 | 19,000 | 4,541 | 2,043 | 2,498 | |
| District Boards' lines - - - | 99·46 | 300,467 | 1,603,000 | 476,000 | 34,933 | 16,934 | 17,999 | |
| Assisted companies' lines - - | 1,345·44 | 6,289,739 | 14,835,488 | 2,396,578 | 1,023,538 | 435,565 | 587,973 | |
| Lines owned by Native States and worked by companies. | 724·22 | 3,045,000 | 3,653,997 | 740,093 | 242,682 | 148,783 | 93,899 | |
| Lines owned and worked by Native States. | 1,223·04 | 2,794,136 | 3,169,601 | 628,197 | 319,025 | 143,672 | 175,353 | |
| Lines in foreign territory - - | 73·60 | 1,004,555 | 743,190 | 244,172 | 39,204 | 26,400 | 12,804 | |
| TOTAL FOR 1904 - - | 11,540·47 | 63,786,381 | 84,935,325 | 14,864,273 | 6,513,451 | 3,407,527 | 3,105,924 | 4·87 |
| TOTAL FOR 1903* and‖ - | 11,353·75 | 60,389,133 | 78,824,900 | 13,876,000 | 6,226,000 | 3,206,067 | 3,019,933 | 5·00 |
| *Special (2′ 6″ and 2′ 0″) Gauges.* | | | | | | | | |
| State lines worked by companies | 270·21 | 699,183 | ‡ | ‡ | 21,186 | 14,206 | 6,980 | |
| State lines worked by the State - | 30·25 | 60,415 | 162,864 | 9,421 | 4,899 | 5,095 | —196 | |
| Assisted companies' lines - - | 300·34 | 1,819,503 | 2,665,954 | 220,205 | 169,470 | 96,288 | 73,182 | |
| Lines owned by Native States and worked by companies. | 339·81 | 612,313 | 890,981 | 97,442 | 35,167 | 23,143 | 12,024 | |
| Lines owned by Native States and worked by State railway agency. | 33·60 | 98,221 | 159,800 | 91,100 | 9,500 | 3,800 | 5,700 | |
| Lines owned and worked by Native States. | 94·36 | 152,921 | 294,485 | 32,921 | 23,467 | 10,952 | 12,515 | |
| TOTAL FOR 1904 § - - | 1,068·57 | 3,442,556 | 4,173,384 | 451,089 | 263,689 | 153,484 | 110,205 | 3·20 |
| TOTAL FOR 1903 * and § - | 1,015·63 | 3,364,267 | 4,017,700 | 442,000 | 216,400** | 146,933 | 69,467 | 2·06 |
| TOTAL OF ALL RAILWAYS FOR 1904 §. | 27,560·51 | 230,462,950 | 229,774,591 | 54,325,067 | 26,072,761 | 12,394,242 | 13,678,519 | 5·94 |
| TOTAL OF ALL RAILWAYS FOR 1903 *, § and ‖. | 26,351·29 | 222,976,600 | 210,230,600 | 47,684,000 | 24,005,467 | 11,407,267 | 12,598,200 | 5·65 |

It will be observed that, with an increase of 709·22 ** miles or 2·64 per cent. in the open mileage, as compared with 1903, the gross earnings and working expenses increased by £2,067,294 or 8·61 per cent., and £986,975 or 8·65 per cent., respectively, resulting in a gain of £1,080,319 or 8·58 per cent. in the net earnings.

There was an increase of 19,543,991 in the number of passengers and of 6,641,067 tons in the weight of goods carried as compared with the previous year.

* As corrected from later information.

† Included with State lines worked by the State, 3′ 3⅜″ gauge. The figures shown in the subsequent columns represent the transactions of the Brahmaputra-Sultanpur Branch railway, which was purchased by the State on the 1st April 1904.

‡ Included with the 5′ 6″ gauge. § Excluding the Thaton-Duyinzaik Light Railway.

‖ Excluding the Damchara-Lumding section, 96·70 miles.

** The difference between this figure and the total length shown as opened during 1904 in paragraph 4 is due to the exclusion of the Damchara-Lumding section, 96·70 miles, from the figures of 1903, and to the abandonment of 5·24 miles of the Eastern Bengal State Railway, and to minor corrections in the mileage of open lines in the year under review.

3. The transactions of the original guaranteed lines are shown in the following table, in which the rupee is converted into sterling at contract rates :— RAILWAYS. Guaranteed railway transactions.

| RAILWAYS. | Total Capital Outlay. | Net Revenue. | Guaranteed Interest. | Interest in Excess of Revenue. | Net Revenue in Excess of Interest. | Surplus Profit. |
|---|---|---|---|---|---|---|
| HALF-YEAR ENDED THE 30TH JUNE 1904. | £ | £ | £ | £ | £ | £ |
| Bombay, Baroda, and Central India. | 10,950,697 | 354,833 | 245,729 | — | 109,104 | 109,197* |
| Madras - - - | 12,306,641 | 294,062 | 286,511 | — | 7,541 | 3,794† |
| Total - | 23,257,338 | 648,885 | 532,240 | — | 116,645 | 112,991 |
| HALF-YEAR ENDED THE 31ST DECEMBER 1904. | | | | | | |
| Bombay, Baroda, and Central India. | 10,970,587 | 241,741 | 246,015 | 4,274 | — | — |
| Madras - - | 12,369,561 | 278,273 | 288,962 | 10,689 | — | — |
| Total - | 23,340,148 | 520,014 | 534,977 | 14,963 | — | — |
| Total for the year 1904. | 23,340,148 | 1,168,899 | 1,067,217 | — | 101,682 | 112,991 |
| Total for the year 1903. | 23,195,074 | 1,079,833 | 1,052,092 | — | 27,741 | 135,085† |

4. The total railway mileage on each gauge opened during the year and the sections opened were as follows :— Mileage opened.

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| *5′ 6″ Gauge*— | | | |
| Bengal Central— | | | |
| Dum Dum to Pattipooker - - - - - | — | 2·68‡ | |
| Bengal Nagpur— | | | |
| Fort Gloster branch - - - - - - | 3·00 | | |
| Aldih branch - - - - - - - | 2·55 | | |
| Jamadhoba loop - - - - - - | 5·23§ | | |
| Southern half of the Malkera - Katrasgarh cross connection. | 0·71‖ | 11·49 | |
| Agra-Delhi Chord— | | | |
| Raja Kir Mandi (Agra) to Delhi Sadr - - | — | 120·10 | |
| Madras— | | | |
| Cannanore to Azhikal - - - - - - | — | 4·10 | |
| North Western State— | | | |
| Hyderabad to Badin - - - - - - | — | 61·84 | |
| Oudh and Rohilkhand State— | | | |
| Fyzabad to Sultanpur - - - - | 35·50 | | |
| Siwait to Phaphamau - - - - - | 3·27 | | |
| Hapur to Meerut - - - - - - | 18·09 | | |
| | | 56·86 | |
| | | | 257·07 |
| *3′ 3⅜″ Gauge*— | | | |
| Bengal and North-Western (Company's section)— | | | |
| Kopaganj to Dohrighat - - - - - | 21·70 | | |
| Aunrihar to Jaunpur - - - - - | 36·14 | 57·84 | |
| Rajputana-Malwa (Rewari-Phulera Chord)— | | | |
| Rewari to Narnaul - - - - - - | — | 32·63 | |
| Burma— | | | |
| Suburban lines at Bassein - - - - | — | 3·18 | |
| Tinnevelly-Quilon (Travancore) (British section)— | | | |
| Portion of the British section near the Frontier of the Travancore State and near Shencottah - - | — | 0·91 | |
| Tinnevelly-Quilon (Travancore) (Native State section)— | | | |
| Quilon to the British Frontier near Shencottah - - | — | 57·62 | |
| | | | 152·18 |
| Carried over - - - - - - | | | 409·25 |

* The excess of "Surplus profits" over "Net revenue in excess of Interest" is due to the exclusion of expenditure on the Viramgam-Wadhwan section from the surplus profits account.

† Passed provisionally. § Includes 1·33 miles opened in 1903.

‡ Previously treated as a siding. ‖ Opened in 1903.

RAILWAYS.

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| Brought forward - | — | — | 409·25 |
| *2′ 6″ Gauge—* | | | |
| Bengal-Nagpur— | | | |
| Nainpur to Chhindwara - - - - | 87·54 | | |
| Nainpur to Burgi - - - - - | 51·00 | | |
| | | 138·54 | |
| Gaekwar's Dabhoi— | | | |
| Mhoba to Masor Road (Kanjat) - - - | — | 6·49 | |
| Tarakeshwar-Magra— | | | |
| Magra to Tribeni - - - - - | — | 2·15 | |
| | | | 147·18 |
| *2′ 0″ Gauge—* | | | |
| Gwalior— | | | |
| Gwalior to Sabalgarh - - - - - | — | 57·19 | |
| Howrah-Amta— | | | |
| Jagatballubpur to Autpur - - - - | — | 8·50 | |
| | | | 65·69 |
| TOTAL - - - - | | | 622·12 |

Mileage sanctioned.

5. The additional lengths sanctioned for construction were :—

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| *5′ 6″ Gauge—* | | | |
| Bengal Central— | | | |
| Dum Dum to Pattipooker - - - - | — | 2·68* | |
| Petlad-Cambay (Tarapur-Cambay section)— | | | |
| Cambay to Cambay Bandar - - - - | — | 1·39 | |
| East Indian— | | | |
| Hariharpur to Dhanbaid† - - - - | 21·43‡ | | |
| Nagri to Kusunda - - - - - | 1·59‡ | | |
| Khurja to Hapur - - - - - | 39·49 | | |
| | | 62·51 | |
| Great Indian Peninsula— | | | |
| Warora, *viâ* Chanda to Bellarpur - - - | — | 37·59 | |
| Indian Midland— | | | |
| Cawnpore Collectorgunge branch - - - | 0·63‡ | | |
| Balinganj branch - - - - - | 4·34‡ | | |
| | | 4·97 | |
| Nagda-Muttra— | | | |
| Nagda to the crossing of the Chambal river - - | — | 141·52 | |
| North-Western State— | | | |
| Shahdara to Sangla - - - - - | — | 55·17 | |
| | | | 305·83 |
| *3′ 3⅜″ Gauge—* | | | |
| Bengal and North-Western (Company's section)— | | | |
| Savan to Thawe - - - - | 17·00 | | |
| Baharonda to Maharajganj - - - - | 3·90 | | |
| | | 20·90 | |
| Burma— | | | |
| Henzada to Kyangin - - - - - | — | 65·66 | |
| Eastern Bengal State— | | | |
| Katihar to Godagari - - - - - | — | 105·00 | |
| Jodhpur-Bikaner (Jodhpur section)— | | | |
| Merta Road to Merta City - - - - | — | 8·95 | |
| South Indian— | | | |
| Mandapam to Rameswaram temple - - - | 10·12 | | |
| Tangachimadam to Port Ampthill - - - | 1·71 | | |
| | | 11·83 | |
| | | | 212·34 |
| *2′ 6″ Gauge—* | | | |
| Bengal-Nagpur— | | | |
| Gondia to Chanda - - - - - | 158·00 | | |
| Pauni (Brahmapuri) to Nagpur - - - | 63·75 | | |
| Pench Valley Extensions— | | | |
| Chhindwara to Burcooie - - - - | 21·36 | | |
| Khursadeyi to Sirgora - - - - - | 7·76 | | |
| | | 250·87 | |
| | | | 250·87 |
| Carried over - - - - - - | | | 769·04 |

* Previously treated as a siding.
† Sanction includes the provision of a second track, 25·09 miles, between Dhanbaid and Barakar.
‡ Sanctioned prior to 1st January 1904.

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| Brought forward - | — | — | 769·04 |
| *2′ 0″ Gauge—* | | | |
| Gwalior— | | | |
| Sabalgar to Shiupur - - - - - - | — | 68·60 | |
| Matheran— | | | |
| Neral to Matheran - - - - - | — | 12·00 | |
| | | | 80·60 |
| TOTAL - - - - - - | | | 849·64 |

6. The total mileage under construction or sanctioned for construction at the close of the year, *i.e.*, on the 31st December 1904, was as follows :— Mileage under construction.

| | Miles. | Miles. |
|---|---|---|
| *5′ 6″ Gauge—* | | |
| State lines worked by companies - - - - - | 468·69 | |
| State lines worked by the State - - - - - | 553·42 | |
| Assisted companies' lines - - - - - - | 154·00 | |
| Lines owned by Native States and worked by companies - | 1·39 | |
| | | 1,177·50 |
| *3′ 3⅜″ Gauge—* | | |
| State lines worked by companies - - - - | 635·40 | |
| State lines worked by the State - - - - - | 300·87 | |
| District Boards' lines - - - - - - | 5·53 | |
| Assisted companies' lines - - - - - | 295·94 | |
| Lines owned by Native States and worked by companies - - | 72·85 | |
| Lines owned and worked by Native States - - - | 8·95 | |
| | | 1,319·54 |
| *Special (2′ 6″ and 2′ 0″) Gauges—* | | |
| State lines worked by companies - - - - | 334·29 | |
| State lines worked by the State - - - - - | 6·80 | |
| Assisted companies' lines - - - - - | 345·37 | |
| Lines owned by Native States and worked by companies - - | 100·70 | |
| Lines owned by Native States and worked by State railway agency | 22·02 | |
| Lines owned and worked by Native States - - - | 11·86 | |
| | | 821·04 |
| TOTAL - - | | 3,318·08 |

7. The following gives a brief abstract of the important works completed and in progress during the year 1904 :—

Important works completed and in progress.

*Bengal-Nagpur Railway System.*—The work of doubling the main line between Bauria and Khargpur, 57·72 miles, was continued during the year. It is expected that the second line between Bauria and Ulubaria, 5 miles, will be opened shortly for traffic. The construction of the Bhojudih-Hariharpur Chord, 26·96 miles, is in progress. Arrangements for renewing the girders, six spans of 170 feet, of the Kanhan bridge near Kamptee are in hand.

Of the Jubbulpore-Gondia 2′ 6″ gauge extensions, the sections from Nainpur to Seoni, 47 miles, Seoni to Chaurai, 19·25 miles, Chaurai to Chhindwara, 21·29 miles, and Nainpur to Burgi, 51 miles, were opened for traffic on the 12th February, 28th July, 1st September, and 5th July 1904, respectively. Good progress has been made with the Nerbudda bridge, 11 spans of 100 feet, on the Burgi-Jubbulpore section. The re-survey of the Nainpur-Mandla branch, 22·67 miles, has been completed.

The construction of the 2′ 6″ gauge extensions from Chhindwara to Burcooie, 21·36 miles, and Khursadeyi to Sirgora, 7·76 miles, in the Pench Valley, is in hand.

The re-survey of the Gondia-Chanda extension, including the Pauni (Brahmapuri)-Nagpur branch, 221·75 miles, has been commenced.

It is expected that the 2′ 6″ gauge light railway from Baripada Road station on the Northern section of the East Coast State Railway, to Baripada, 32·10 miles, which is under construction by the Native State of Moharbhanj, will be opened for traffic in January 1905. Arrangements have been made for the working of the line by the Bengal-Nagpur Railway Company.

*Bombay, Baroda and Central India Railway System.*—The remaining section of the Gaekwar's Dabhoi Railway from Mobha to Masor Road (Kanjat), 6·49 miles, was opened for traffic on the 1st November 1904.

RAILWAYS.

The first section of the Rewari-Phulera Chord from Rewari to Narnaul, 32·63 miles, was opened for traffic on the 11th December 1904. It is expected that the Narnaul-Phulera section, 100·69 miles, will be opened by May 1905.

The Jaipur Durbar has arranged to provide funds during the next three years for the completion of the Jaipur-Siwai Madhopur Railway, 72·85 miles, the construction of which had been deferred temporarily. Work will be resumed shortly on the first 43 miles of the railway.

*Eastern Bengal State Railway System.*—In connection with the scheme for quadrupling the line between Ballygunge and Naihati, 27·35 miles, the Kankurgachi-Dum Dum junction section, 3·25 miles, is expected to be opened for traffic by March 1905.

The construction of the Kankurgachi-Gobra junction double line chord, 2·25 miles, was proceeded with. One line is expected to be laid through by June 1905, and the second line by June 1906.

The remodelling of the station yard at and approaches to Parbatipur junction, on the Northern section of the railway, is expected to be completed in 1905.

It is expected that the Kaunia-Bonarpara extension, 44·25 miles, will be opened for traffic in April 1905.

Work is in progress on the Golokganj-Dhubri extension, 151·62 miles. It is expected that the first section from Golokganj to Salmara Road, 55 miles, will be opened for traffic by the end of 1905.

On the Murshidabad branch, Ranaghat to Lalgola, 97·50 miles, rails were linked in from Ranaghat to Jeaganj, 81 miles, on the 27th October 1904. The brickwork of the bridges over the Churni river (3 spans of 120 feet) and Jellinghee river (3 spans of 120 feet and 1 span of 250 feet with 35 feet headway) has been completed and girder erection is in progress. It is expected that the branch will be opened for traffic by December 1905.

Preliminary arrangements have been made for the acquisition of land for the Katihar-Malda section, 52·84 miles, of the Katihar-Godagari railway.

*East Indian Railway.*—In connection with the Gya-Barakar project, work is in progress on the railway from Manpur (Gya) to Dhanbaid including the Nagri-Kusunda connection, 123·08 miles, and on the second line between Dhanbaid and Barakar, 25·09 miles. Work on the Khurja-Hapur branch, 39·49 miles, the Ondal-Sainthia Chord, 44·93 miles, is also in progress. The Shikohabad-Furrakhabad branch, 65·82 miles, is approaching completion.

At Howrah, the new station building, the riverside goods warehouse, and the new locomotive yard are in hand; and at Allahabad, good progress has been made with the works in connection with the entrance of the Allahabad-Fyzabad Railway, and the remodelling of the station.

*Great Indian Peninsula Railway System.*—On the Great Indian Peninsula Railway, works in connection with the strengthening and renewal of bridge girders were continued. Considerable progress has been made with the construction of the second line between Khandwa and Itarsi, 110·42 miles, and it is expected that the up road will be available for traffic by April 1905, though single line working will be necessary over two or three large bridges for some time. A commencement has been made with the construction of the Warora-Bellarpur extension, 37·59 miles.

On the Indian Midland Railway, the new goods depôt at Cawnpore has been completed practically, and work on the goods depôt, at Balinganj, Agra, is well in hand.

The first section of the Agra-Delhi Chord Railway, from Delhi Sadr to Kosi, 62·62 miles, was opened for traffic on the 15th November 1904, and the section from Kosi to Raja Kir Mandi (Agra), 57·48 miles, on the 3rd of December 1904.

The Gwalior-Jora Alapur section, 31·34 miles, and the Jora Alapur-Sabalgarh section, 25·85 miles, of the Gwalior Light Railway were opened for traffic on the 1st January and 1st December 1904, respectively.

*Madras Railway System.*—The remaining section of the Calicut-Azhikal extension of the South-West line of the Madras Railway from Cannanore to

Azikhal, 4·10 miles, was opened for traffic on the 15th March 1904. On the State line from Azikhal to Mangalore, 77·27 miles, which is being built by the agency of Madras Railway Company, about three-fourths of the earthwork has been completed, the heading of the tunnel at Chandragiri has been commenced, and the work of sinking the wells of major bridges is in progress.

Of the two famine protective branch railways, nearly three-fourths of the earthwork of the Morappur-Dharmapuri line, 18·36 miles, has been completed and a commencement made with the bridgework. On the Tirupattur-Krishnagiri line, 25·43 miles, rails have been laid to Krishnagiri. Sidings remain to be put in.

The work of re-constructing certain bridges on the North-East line (Southern section, East Coast State Railway) which were damaged by floods, and that of providing additional waterway, has been practically completed. Good progress has been made with the earthwork and station buildings of the link from Korukkupettai to Basin Road, which will connect the North-East line (Southern section, East Coast State Railway) and the South-West line of the Madras Railway.

Construction is in progress on the first mile of the extension of the Nilgiri Railway from Coonoor to Ootacamund, 11·50 miles.

*North-Western State Railway System.*—The work of doubling the line between Mooltan Cantonment and Mooltan City stations, 1·25 miles, has been completed. Of the second track between Samasata and Rohri, 208·50 miles, construction is in progress on the Samasata-Reti section, 138·50 miles, and arrangements have been made to start work on the second track between Lahore and Amritsar, 32·30 miles.

The line from Hyderabad to Badin, 61·84 miles, which will probably form part of a through route between Sind and Bombay, was opened for traffic on the 15th August 1904.

Good progress has been made on the Quetta-Nushki branch, 82·50 miles, and on the southern section of the Jech-Doab branch between Sargoda and Jhang, 69 miles. It is expected that rails will be laid through on the former branch by the second quarter of 1905.

Arrangements have been made to start work on the Shahdara-Sangla Chord line, 55·17 miles.

The Conversion of the 2′ 6″ gauge line between Khushalgarh and Kohat, 29·70 miles, to the 5′ 6″ gauge, and the construction of the approaches of the permanent bridge over the Indus river at Khushalgarh are in hand.

Good progress has been made with the construction of the Ludhiana-MacLeod Ganj Road extension, 154 miles, of the Southern Punjab Railway. It is expected that the extension will be opened for traffic in April 1905.

*Oudh and Rohilkhand State Railway.*—The sections of the Allahabad-Fyzabad branch from Siwait to Phaphamau, 3·27 miles, and from Fyzabad to Sultanpur, 35·50 miles, were opened for traffic on the 20th January and 1st February 1904, respectively. The remaining section from Phaphamau to Allahabad, 7·98 miles, is expected to be opened for traffic in January 1905. The entrance into Allahabad will be obtained by means of a temporary bridge over the river Ganges. It is expected that the permanent bridge will be completed by the middle of 1905.

The branch from Hapur to Meerut, 18·09 miles, was opened for traffic on the 24th October 1904, and work has been commenced on the Phaphamau-Zafarabad branch, 57·50 miles.

*Assam-Bengal Railway.*—The hill section of this railway from Damchara to Lumding, 96·70 miles, which was opened for traffic on the 1st December 1903, was damaged seriously by exceptionally heavy rainfall in April 1904 and closed to traffic. Damages were repaired, and the line re-opened for all descriptions of traffic on the 1st November 1904.

The work on the second jetty at Chittagong was completed sufficiently to enable its being brought into use.

*Bengal and North-Western Railway System.*—Of the lines under construction on the Company's section, the extensions of the Ganges-Gogra Doab lines from Aunrihar to Jaunpur, 36·14 miles, and from Kopaganj to Dohrighat, 21·70 miles, were opened for traffic on the 21st March 1904.

RAILWAYS. Good progress has been made on the Uska Bazar-Tulsipur extension, 53·54 miles, of which the section from Uskabazar to Bahadurganj, 31 miles, has been inspected prior to its being opened for traffic. Arrangements are in progress to start work on the extensions from Gorakhpur to Bagaha, 60·94 miles, Savan to Thawe, 17 miles, and Daronda to Maharajganj, 3·90 miles.

The works necessary for the protection of the Kosi bridge (15 spans of 200 feet) on the Tirhoot section, were proceeded with. It is expected that the doubling of the existing line between Barauni and Bachhwara, 10·25 miles, will be completed by the close of 1905. The Sakri-Jaynagar extension, 30·47 miles, has been inspected prior to its being opened for traffic. The construction of the lines from Mansi to Baptiahi with branch from Sihursa to Murliganj, 78·98 miles, Bairagnia to Biknathori, 79·55 miles, and Bettiah to Bagaha, 49·35 miles, is in hand.

*Bengal Dooars Railway.*—The Chalsa-Madarihat section, 38·60 miles, which had been damaged considerably by floods in 1903, and re-opened for traffic during that year, was again breached on the 30th May 1904. Traffic was resumed from Chalsa to Chengmari on the 6th June, Chengmari to Binnagauri on the 20th September, and Binnagauri to Madarihat on the 1st October 1904. The work of repairing flood damages and the provision of extra waterway is in progress. The bridge of 3 spans of 100 feet at mile 104 has been completed practically and a new bridge of 3 spans of 40 feet at mile 125 on a realignment is in course of erection.

*Burma Railways.* — The second tracks between Pazundaung and Thingangyun, 3·25 miles, and Insein and Hlawga, 8·25 miles, have been completed. Work on the Pegu-Martaban extension, 121·27 miles, and the Henzada-Kyangin extension, 65·66 miles, is in progress.

*Jodhpur Railway.*—It is expected that the branch from Merta Road to Merta City, 8·95 miles, which is being made will be opened shortly for traffic.

*Rohilkund and Kumaon Railway System.*—The earthwork of the Company's line from Bareilly to Soron, 56 miles, is well forward, and well sinking for the Ganges and other major bridges has been started. The existing section of the Rajputana-Malwa Railway between Kasganj and Soron, 9 miles, which will be purchased by the Company, has been re-laid with 50-lb. rails.

A commencement has been made with the extensions from Moradabad to Ramnagar, 47 miles, and Lalkua to Kashipur, 45 miles.

*South Indian Railway System.*—The new junction station at Manniyachi has been completed practically, and work on the locomotive shed and yard in connection with the scheme for re-arranging the Egmore station is in hand.

The remaining sections of the Tinnevelly-Quilon (Travancore) Railway, from Quilon to Punalur, 28·28 miles, and from Punalur to the British frontier near Shencottah, 30·25 miles, were opened for traffic on the 1st June and 26th November 1904, respectively. The most important work on this branch is the Aryankavu tunnel, 2,924 feet long, which was completed to full section in July 1904.

The Arantangi quarry branch of the Tanjore District Board Railway, 3·90 miles, has been nearly completed.

*Southern Mahratta Railway System.*—Of the famine feeder lines under construction by the Southern Mahratta Railway Company on behalf of the State, it is expected that the Hospet-Kottur branch, 44·10 miles, will be opened for traffic during the first half of 1905, and the Bellary-Rayadrug branch, 33 miles, by the close of that year.

*Baraset-Basirhat Light Railway.*—This line from Baraset on the Bengal-Central Railway to Basirhat, 26 miles, is likely to be opened for traffic early in 1905.

*Barsi Light Railway.*—On the two extensions from Barsi town to Tadwala, 26·70 miles, and Barsi Road on the Great Indian Peninsula Railway, to Pandharpur, 30·67 miles, the earthwork of which was thrown up by Government famine labour, construction was commenced on the former in September 1904, and the extension will probably be opened for traffic in April 1906. The latter extension will be taken in hand on the necessary capital being subscribed.

*Cutch Railway.*—This railway from Tuna to Anjar, 11·86 miles, is under construction by His Highness the Rao of Cutch.

*Dwara-Therria Light Railway.*—Work on the Dwara-Maolong section, 13·50 miles, has been suspended since June 1904 for want of funds.

*Kalka-Simla Railway.*—A large portion of the unfinished works on this railway has been completed.

*Madura District Light Railway.*—Messrs. Wilson & Co. of Madras, the promoters, were granted originally a concession for the construction under the Indian Tramways Act, of 2′ 6″ gauge lines from Ammayanayakkanur to Kotagudi, Perriyakulam to Krishna-Manaik's Tope and Theni to Karuvanath, a total length of 93 miles, but as there was no provision under the Tramways Act for payment of interest out of capital during construction, they submitted an amended application for a scheme for light railways to be constructed under the provisions of the Indian Railways Act. The promoters were informed that subject to their acceptance of certain conditions, they might proceed to raise the necessary capital for the line. They accepted the conditions in July 1902 and came to an agreement with the Madura District Board, which though signed, has not yet been registered pending the result of negotiations regarding capital in London.

*Morvi Railway.*—The conversion of the existing 2′ 6″ gauge line from Wadhwan to Rajkot, 77·61 miles, to the 3′ $3\frac{3}{8}$″ gauge is in progress and is expected to be completed in March 1905. The scheme provides for 30 miles of new line on a separate alignment between Wadhwan and Than Road.

*Tarakeshwar-Magra Light Railway.*—The extension from Magra to Tribeni, 2·15 miles, was opened for traffic on the 14th April 1904.

*Howrah-Amta Light Railway.*—The extension from Jagatbullabpur to Autpur, 8·50 miles, was opened for traffic on the 1st June 1904.

*Jorhat State Railway.*—The breach which was caused by floods on the Gosaigaon-Patiagaon section of this railway in September 1904, was repaired and through communication between Jorhat and the River Terminus stations restored in December of the same year.

8. The following were the principal events in 1904. :—

*General.*—Notice has been given to the Bengal Central Railway Company of termination, with effect from the 1st July 1905, of the Company's contract made with the Secretary of State for India on the 5th January 1887. The Bengal Central Railway will, on purchase by the State, be merged in the Eastern Bengal State Railway system.

The 3′ $3\frac{3}{8}$″ gauge line from Santahar (Sultanpur) on the Northern section of the Eastern Bengal State Railway to Fulchhari, 59·37 miles, and the 2′ 6″ gauge line from Aistala Ghat, on the right bank of the Churni river near Ranaghat, to Krishnagar, 20·25 miles, were purchased by Government from the Brahmaputra-Sultanpur Branch Railway Company and the Ranaghat-Krishnagar Light Railway Company with effect from the 1st April and 1st July 1904 respectively, and incorporated with the Eastern Bengal State railway system.

The 3′ $3\frac{3}{8}$″ gauge line from Debiganj to Anchara Ghat on the Behar section of the Eastern Bengal State Railway system, 5·24 miles, which was damaged seriously by floods from the Kosi river in 1903, has been abandoned.

The 3′ $3\frac{3}{8}$″ gauge line from Sagauli to Raxaul, 18·09 miles, was purchased by Government from the Sagauli-Raxaul Branch Railway Company with effect from the 11th April 1904, and incorporated with the Tirhoot State Railway.

On the 15th June 1904, a separate Operating Department was started on the East Indian Railway to supervise specially the working of trains. The department consisted of a senior officer, three assistants and five inspectors. It continued its operations until the end of the year, when it was finally closed on the inauguration of a new system of working, under which Commercial was separated from Transportation work.

With effect from the 1st August 1904, through booking of passengers and their luggage by the Ellerman line of steamers was established between the principal North Western State Railway stations and the United Kingdom.

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*Rate for Conversion of Sterling.*—With effect from the 1st January 1903, the undermentioned Railway Companies have agreed to adopt the fixed rate of Rs. 15 = £1 in lieu of the varying half-yearly rates prescribed in certain clauses of their contracts, for the purposes of converting sterling payments in England into Indian currency and also for the rates at which Capital raised in England should be converted into rupees in the Indian accounts:

Assam-Bengal, Bengal Central, Bengal-Nagpur, Burma, Indian Midland, Southern Mahratta, Rohilkund and Kumaon (for working the Lucknow-Bareilly Railway), Bengal and North-Western (for working the Tirhoot Railway), East Indian, Great Indian Peninsula, South Indian, Bombay, Baroda and Central India, Madras (for extension), Delhi-Umballa-Kalka, Southern Punjab, South Behar, Bengal-Dooars, Barsi Light, and Noakhali (Bengal) Railway Companies.

*Contracts executed for the Construction and Working of Railways.*—On the $\frac{9th}{16th}$ December 1903, an agreement was entered into between the East Indian Railway Company and the Administration of the Oudh and Rohilkhand State Railway for running powers to the East Indian Railway over the Moghal Sarai-Benares Cantonment section of the Oudh and Rohilkhand State Railway for through passenger trains with effect from the 1st July 1902.

On the 30th December 1903, an Indenture was executed with the Madras Railway Company for the construction and working of the Azhikal-Mangalore State Railway.

On the 18th April 1904, an "Order" was made by the Government of the United Provinces of Agra and Oudh for the construction and working by Messrs. Martin and Company of a tramway, on the 2′ 6″ gauge, from Shahdara to Saharanpur, with a branch from Baraut to Meerut.

On the 15th July 1904, an Indenture was executed with the Rohilkund and Kumaon Railway Company for the construction and working of the (*i*) Bareilly-Soron, (*ii*) Moradabad-Ramnagar, and (*iii*) Lalkua-Kashipur extensions of the Rohilkund and Kumaon Railway.

On the 4th October 1904, an Indenture was executed with the Madras Railway Company for the construction and working on behalf of the State of the Morappur-Dharmapuri and Tirupattur-Krishnagiri famine feeder Railways.

*Constitution of a Railway Board.*—As the outcome of a proposal made by Mr. Thomas Robertson, C.V.O., in his report on the working of Indian railways, His Majesty's Secretary of State for India sanctioned the formation of a Board, consisting of a Chairman and two Members—with the necessary clerical establishment—to whom is now entrusted the general control and administration of the railways in India, functions hitherto exercised by the Government of India in the Railway Branch of the Public Works Department.

Mr. F. R. Upcott, C.S.I., Government Director of Indian Railway Companies, has been appointed to the Chairmanship of the Board, and the two members are Mr. W. H. Wood, General Manager of the Hull and Barnsley Railway, England, and Mr. T. R. Wynne, C.I.E., Agent and Chief Engineer, Bengal-Nagpur Railway. These gentlemen assumed office in February 1905.

*Indian Railway Conference Association.*—A meeting of the Association was held at Calcutta in February 1904 to consider the collective replies or instructions which had been received from the Boards of Directors of the several Railway Companies in England in regard to the proposals, made by the Association in October 1903, for certain modifications in its "fundamental rules" with a view to extending its functions. As it was found that those proposals did not meet with the approval of the Boards, the Association proceeded to conduct its business under the fundamental rules as they originally stood, and decided, *inter alia*, that the President should appoint the Secretary for the time being and fix the headquarters of the office till matters further matured. Shortly after this meeting, work in connection with the Railway Conference which had hitherto been carried on in the Railway Branch of the Public Works Department of the Government of India, was transferred to the Secretary together with all records.

In October of the same year the Conference held seven sittings, at which the more important subjects discussed were the—(i) proposal to fix a time limit in connection with the recovery of undercharges, (ii) modification of the rules for warehousing or retaining goods at railway stations, (iii) appointment of a committee of railway officers, with the assistance of a Government expert, to settle the question of uniformity in classification and rules for the transport of explosives, (iv) revision of the existing Risk Note Forms, and (v) the establishment of a tribunal of arbitration, the object of which is to determine, and settle disputes and differences connected with certain matters—(*a*) between railways belonging to the association, (*b*) between railways belonging to the association and parties who have agreed with the railway or railways concerned to submit such disputes or differences to the tribunal.

*Standardization of Locomotives.*—The Government of India have issued instructions to adopt so far as may be practicable, the standard types of locomotives designed by the English Engineering Standards Committee on all Indian railways of 5′ 6″ and 3′ 3⅜″ gauges in preference to their existing types whenever they indent for new locomotives, whether for renewals or additions.

*Visit of Mr. Grant Burls, C.S.I., to India.*—Mr. Grant Burls, C.S.I., Director-General of Stores at the India Office, who was deputed to India in September 1903, visited *inter alia* the headquarters of the several State railways, and on the 7th January 1904 held a conference at Calcutta with the Store-keepers of the State railways. At this conference it was resolved that indents for all classes of stores should reach the India Office in February and March of each year, and that the number of indents sent home annually should be kept as low as was consistent with efficiency. The question of the standardization of metals, tools, &c., for use on State lines was also discussed at the conference, and it was decided to prepare for guidance in future a standard list of such stores in consultation with the Managers of State lines.

In order to facilitate supply of stores indented for from England, permission has been given to the Director of Railway Construction and to Managers of State Railways to communicate direct by telegram with the Director-General of Stores at the India Office on the subject.

*Coal Loading Depôt at Luff Point, Bengal-Nagpur Railway.*—In November 1903 a Commission was appointed, and met at Calcutta, to inquire whether it was practicable and, if so, whether it was desirable, to establish a depôt for the export of coal in the neighbourhood of Luff Point just below the James and Mary shoal on the river Hooghly.

The conclusions arrived at by the Commission were—

(*a*) that they considered that there was no physical impossibility in providing facilities at Luff Point for the accommodation and shipment of coal—that they considered, however, that it would not be prudent to incur any large expenditure without first ascertaining, by means of careful observations of the currents and eddies throughout the year, whether vessels could at all times make use of jetties or other facilities—that they were of opinion that the expenditure required to maintain any works at, or in the neighbourhood of Luff Point, would be considerable on account of the erosive action to which the right bank of the Hooghly in that locality is subject;

(*b*) that they were of opinion that it was not, under existing conditions, desirable to establish a coal depôt at or near Luff Point, as that would be of little, if any, use to the coal industry as a whole; and

(*c*) that they were of opinion that if, at some future time, it should be found necessary or desirable to establish such a depôt, or an auxiliary port in any form at Luff Point, or at any other place on the Hooghly, such depôt or port should be established and controlled by Government through the Commissioners of the Port of Calcutta.

His Honour the Lieutenant-Governor of Bengal in commenting on the report of the Commission agreed that the need for such a depôt had not been

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established. His Honour was further of opinion, that the proposed jetties would be of no great assistance towards relieving the general trade of the Port of Calcutta, and that he was satisfied that, should it be found necessary in the future, to provide an auxiliary port on the Hooghly (which appeared more than probable), nothing short of a dock equipped with all the latest modern appliances would suffice. He also accepted the Committee's conclusion that if an auxiliary port were required, it should be established and controlled by Government through the Commissioners of the Port of Calcutta.

The Government of India, in passing orders on the report of the Commission, agreed generally with the views expressed by His Honour the Lieutenant-Governor, but were of opinion that if a coal depôt or jetties were required by any private firm or Company, the Port Commissioners should be given the first opportunity of providing the accommodation, and in the event of their declining to make such provision, the Government of India would be prepared to consider proposals from a substantial company for the construction of the coal depôt, &c., together with the connecting railway.

*Projects for New Lines.*—The concession which was granted for the construction by private enterprise, on the 3′ $3\frac{3}{8}$″ gauge, of the Kurnool Road (Dhone)-Kurnool Railway (Madras), 32 miles, the Bezwada-Masulipatam Railway (Madras), 50 miles, the Guntur-Repalle line (Madras), 38 miles, and the Phirangipuram-Gurzala line (Madras), $50\frac{3}{4}$ miles, lapsed on the 30th April 1904, as the promoters failed to form a company and raise the requisite capital.

The Kistna District Board has since submitted proposals through the Local Government for financing the Bezwada-Masulipatam Railway with the help of a special cess levied under the provisions of section 57 (ii) of the Madras Local Boards Act, 1884, supplemented by a loan from the Government of Madras under the Local Authorities Loan Act (XI. of 1879). The proposals have been approved by the Government of India.

The scheme for the construction, on the 2′ 6″ gauge, of the Raichur-Wondalli railway (Hyderabad), 43 miles, the concession for which was granted to the Wondalli (Deccan) Gold Mines Company and the Hyderabad (Deccan) Company in June 1900, has not advanced any further.

A concession has been granted for the construction, on the 5′ 6″ gauge, by a company which is about to be formed, of the Amritsar-Patti Railway (Punjab), about 27 miles, and the necessary preliminary agreement and contract will be executed shortly.

Negotiations which were stated in previous reports to have been proceeding for the construction, on the 2′ 6″ gauge, of the Kangra Valley railway (Punjab), 87 miles, have been terminated owing to the inability of the promoter to form a company.

The promoter of the Rawalpindi-Murree Railway (Punjab), 48 miles, has been offered a concession for its construction on the 2′ 6″ gauge.

The consideration of the proposal, which was received in 1903, for the construction, on the 3′ $3\frac{3}{8}$″ gauge, of a light electric tramway from Sarai Kala, *viâ* Abbottabad, to the Kashmir frontier (North-West Frontier Province and Kashmir), 80 miles, still awaits a decision on the Kashmir Railway scheme.

Fresh proposals for the construction by private enterprise of the following extensions, referred to in the last report of the Dacca State Railway :—

| | Gauge. | Miles. |
|---|---|---|
| (*a*) Mymensingh *viâ* Netrokona to Bara Ari with a branch to Gauripur | 3′ $3\frac{3}{8}$″ | $36\frac{1}{2}$ |
| (*b*) Singhjani *viâ* Sherpur to Nalitbari | 2′ 6″ | 25 |

are being considered.

The following proposals, which were also received during 1904, are under consideration :—

(i) For constructing a steam tramway on the 2′ 0″ gauge from Cawnpore to the left bank of the Jumna, opposite Hamirpur (United Provinces), $35\frac{1}{2}$ miles ;

(ii) For constructing a 5′ 6″ gauge branch from Panchkura, on the Bengal-Nagpur Railway, to Luff Point (Puppy's Parlour) on

the right bank of the Hooghly river (Bengal), 30 miles, and for making terminal and loading arrangements for ships or steamers at the latter place;

(iii) For extending the Ahmedabad-Dholka Railway from Dholka to Dhandhuka (Bombay), 40 miles;

(iv) For constructing a steam tramway from Dhandhuka to Ranpur (Bombay), 18 miles.

Proposals alternative to (iii) and (iv) have been put forward by the Bhavnagar-Gondal-Junagad-Porbandar Railway administration for extending their 3′ $3\frac{3}{8}$″ gauge railway from Ranpur to Dhandhuka, and thence to Dholka.

The following proposals were awaiting completion on 31st December 1904:—

(*a*) For the construction of a tramway or light railway on the 2′ 0″ or 2′ 6″ gauge from Kamptee to Deolapar with a branch from Munsar to Ramteck (Central Provinces), $34\frac{1}{2}$ miles;

(*b*) For the construction, on the 2′ 6″ gauge, of a light railway from Sirajganj to Ullapara (Bengal), 18 miles.

*Extension of the South Indian Railway to Rameswaram and Scheme for a Canal and Harbour in that Island.*—The proposed extension of the South Indian Railway to Rameswaram, and of the scheme for a canal and harbour in that island, was submitted to the Secretary of State, and the extension to Rameswaram and the establishment of jetties to deal effectively with the pilgrim traffic and the ferry traffic to Ceylon were recommended. The proposed railway has been approved generally by the Secretary of State, but the question of the larger scheme is still under consideration.

*Branch or Feeder Line Terms.*—The question of the general revision of the terms for the construction, outside the Government of India "Programme," of branch or feeder lines of railway by private enterprise is in abeyance pending the consideration by the Indian Railway Board, which has recently been sanctioned, of the recommendations made by Mr. Thomas Robertson, C.V.O., in his report on the administration and working of Indian railways.

*Construction of Feeder Lines by Local Boards.*—Local Boards are permitted to devote surplus funds to the promotion of railways or other public works within their districts. To meet the wants of Boards, whose revenue and expenditure balance, the Madras Government, with the concurrence of the Government of India, have authorised Boards to levy a special cess of three pies in the rupee on the assessment of all occupied lands, provided the money so obtained is expended on the construction of railways or tramways. To further assist Local Boards in Madras in such enterprise, the Government of India offered in 1903 to advance a limited amount through the Provincial Loan Account in cases where the Boards are unable to raise all the money required, the loan being secured by a lien on the entire resources of the Board concerned. This offer has now been extended to all District Boards in India which levy a special cess for the construction of railways.

## IRRIGATION.



The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

IRRIGATION. In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the United Provinces of Agra and Oudh, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £2,027,755, comprises 459 miles of main canal and 4,476 miles of distributaries, and in the year 1902–03 supplied water to 871,862 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,643,482, and consists of 319 miles of main channels and 2,721 miles of distributaries, while the Chenab Canal in the same province, which was completed in 1900, has cost £1,767,731, and consists of 429 miles of main and branch channels, and about 2,004 miles of distributaries, with an estimated irrigable area of 2,100,000 acres. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 379, and 844 miles, and together irrigate upwards of 2,400,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "major" and "minor" is not in complete correspondence with the facts, as there are some minor works which are of more importance than some major works. But, speaking

generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1903–04, and the two previous years :—

| — | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | Acres. |
| Major Works - - - | 26,513,075 | 2,789,979 | 893,881 | 1,896,098 | 7·15 | 13,007,677 |
| Minor Works - - - | 3,901,891 | 340,641 | 129,077 | 211,564 | 5·42 | 2,187,292 |
| Total for 1903–04 - | 30,414,966 | 3,130,620 | 1,022,958 | 2,107,662 | 6·93 | 15,194,969 |
| Total for 1902–03 - | 29,648,303 | 3,002,126 | 972,360 | 2,029,766 | 6·85 | 14,088,188 |
| Total for 1901–02 - | 28,907,836 | 2,780,923 | 936,835 | 1,844,088 | 6·38 | 14,076,999 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces of Agra and Oudh, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces of Agra and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The Irrigation Commission, which was appointed in 1901 to inquire into the state and extent of irrigation in India, and its value in affording protection against famine, issued their report on the 11th April 1903. This report has since been published separately as a Parliamentary Paper (Cd. 1854). The recommendations of the Commission have been referred to the various Local Governments concerned, and much has been done towards investigating the numerous schemes proposed, though the report as a whole has not yet been considered by the Government of India.

IRRIGATION. The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal. The Major Irrigation works in Bengal are divided into two classes:—

(i) Productive Works.
(ii) Protective Works.

The productive works comprise the Orissa, Midnapore, Hijili Tidal, and Sone Canals. The Hijili Tidal Canal is for navigation only; while the others are both for irrigation and navigation. The total area irrigated by these canals during the year under review was 809,331 acres, or 13,302 acres more than in the previous year. The increase was chiefly due to an extension of the area irrigated from the Sone Canals.

The receipts during the year from irrigation, navigation, and miscellaneous sources in connection with the productive works were £134,310, or £6,647 less than the figures for the previous year. This considerable decline was due for the most part to smaller receipts during 1903–04, on account of areas irrigated from the Sone Canals in 1902–03.

The protective works are the Tribeni and Dhaka Canals. Considerable progress was made with the construction of the former, while the Dhaka Canal was practically completed during the year. The Madaripore Bhil route, in connection with the Calcutta and Eastern Navigation Canals, was widened and deepened during the year.

Embankments to the extent of 2,147 miles were maintained during 1903–04, affording protection to an area of 8,681,063 acres. The total expenditure incurred on embankments and drainage works was £28,929, of which £25,816 was spent on work connected with embankments.

United Provinces of Agra and Oudh. In the United Provinces of Agra and Oudh, taking the revenue actually realised, the general results of the irrigation operations during 1903–04 are compared with those of the five previous years in the following statement:—

| YEAR. | Capital Outlay to End of Year. | Net Revenue. | Percentage of Net Revenue on Capital. | Area Irrigated during the Year. |
|---|---|---|---|---|
| | £ | £ | | Acres. |
| 1898–99 | 5,806,936 | 391,626 | 6·59 | 2,253,802 |
| 1899–1900 | 6,026,379 | 431,137 | 7·15 | 2,829,794 |
| 1900–01 | 6,047,532 | 434,976 | 7·19 | 2,000,926 |
| 1901–02 | 6,088,391 | 326,564 | 5·36 | 2,616,105 |
| 1902–03 | 6,153,026 | 420,739 | 6·84 | 2,442,211 |
| 1903–04 | 6,303,049 | 420,459 | 6·67 | 2,649,150 |

The most notable feature of the year's working was the record return earned by the Betwa Canal in Bundelkhand. This canal is the only "protective" work in these provinces, and by improvements in the storage capacity was able to realise a profit (amounting to £1,705) for the first time since the drought of 1897–98. When the works now in progress have been completed, it is expected that the canal will show an annual surplus instead of the deficits which have hitherto marked its history. The extension of irrigation from the work justifies the anticipation that equally good results will be obtained from the projected Ken and Dassan Canals.

The capital outlay on all canals during the year rose from £64,635 to £150,023, and altogether 391 miles of new channels were opened, bringing up the total length of open channels to 13,395 miles. The Mát Branch of the Ganges Canal was vigorously pushed on, and although work was started only at the end of 1902, the extension was practically completed and opened for irrigation for the rabi season. The work has effected a great improvement in the condition of the dry tract in Aligarh and Muttra. The construction of

the Ken Canal was begun, and projects were drawn up for canals from the Sarda and Dassan rivers. IRRIGATION.

The gross receipts, both direct and indirect, from all canals were £652,134, as compared with £661,670 in the previous year, the decrease being due to a smaller area under sugarcane and rice. The working expenses were nearly £10,000 less than in the previous year, and the net revenue was £280 less. The interest charges for the year amounted to £223,972, and the net profit, after meeting these, was £196,487. The revenue earned by productive works (£412,006) represented a return of 7·2 per cent. on the total capital outlay, the percentages varying from 3·1 on the Fatehpur branch to 23·2 on the Eastern Jumna. The minor works yielded a net revenue of £6,748, or nearly 3 per cent. on their capital cost.

The total area irrigated in 1903-04 was 2,649,150 acres, or including the Tarai and Bhabar Canals (which are under the Commissioner of Kumaon), 2,764,800 acres. The former area is an advance of 200,000 over the figures of the preceding year, and the third highest on record. Both the kharif and rabi areas were in excess of the average, the area under cotton reached 230,352 acres, against a 12 years' average of 105,757 acres, while the area under wheat (1,067,851 acres) was the highest on record and nearly 300,000 acres above the normal. The value of the crops irrigated, excluding those under the Tarai and Bhabar Canals, is estimated at over £5,666,660.

In the Punjab the Indus Inundation Canal system, which was formerly classed as a Minor work, has been transferred to the head of Major works. There are now eight canal systems classed as Productive Major Works, viz., the Western Jumna, the Bari Doab, the Sirhind, the Chenab, the Jhelum, the Upper Sutlej, the Sidhnai, and the Indus. Expenditure on capital account was incurred on all these canals except the Sidhnai; but the only important extensions at present in progress are on the Jhelum Canal, on which £120,000 were expended during the year, and the Chenab Canal, on which the capital outlay was increased by £30,733. Punjab.

All the perennial canals, with the exception of the Sirhind, exhibit an increase in the irrigated area compared with the average of the previous three years. The inundation canals also experienced a very favourable season, owing to the late and well-sustained monsoon, and gave good results. The total area irrigated by all the Punjab canals (Imperial, Provincial, and Native States) amounted to 6,390,334 acres. About one-fourth of the crops in the Punjab are matured with the assistance of canal irrigation. The Chenab Canal now irrigates 2,000,000 acres, which is more than the area irrigated by the Bari Doab and the Sirhind taken together. The head-works of the Jhelum Canal were completed during the year, and the main lines of the canal were also completed, while considerable progress was made towards the completion of the major and minor Distributary System.

The capital outlay on the canals classed as Major Productive Works amounted to £7,127,196, on which interest at 12 per cent. was earned as the net result of the year's working, after deducting expenditure from income. The best paying canal is the Chenab, which gave a revenue of 23½ per cent. The inundation canals show good results, owing to the favourable and late monsoon. All the canals earned over 7 per cent., except the Jhelum, which is not yet in full working order.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation canals. Burma.

In Upper Burma there are three large irrigation canals, the Mandalay, the Shwebo, and the Môn. Of these, the Mandalay Canal is nearly completed, and was opened for irrigation in June 1903. The length of the canal and its distributaries in operation at the end of the year was 225 miles and the total capital outlay amounted to £335,870, of which £22,752 was expended in 1903-04. The opening of this canal was opportune, as the early rains failed and the smaller works which the canal replaces would not have given a sufficient supply of water. The year's working resulted in a loss of £165; 30,000 acres, mainly rice, were irrigated.

Construction work on the Shwebo Canal progressed satisfactorily. The capital outlay during the year amounted to £67,368, bringing the total to

IRRIGATION. £201,207. The work is estimated to cost £320,273, and is designed to irrigate an area of 150,000 acres annually. Work on the Môn canals was started, and £3,113 expended. Surveys for a new scheme, the Ye-u Canal Project, which is expected to irrigate 100 square miles annually, were also undertaken.

The minor works show a profit on the year's working of £2,790. The area irrigated increased, owing to the abundant rainfall in the latter part of the season, from 239,474 to 274,934 acres.

The total irrigated area in Burma during the year increased from 649,062 acres in 1902–03 to 686,588 acres.

**Central Provinces and Berar.** The great bulk of irrigation in the Central Provinces and Berar is still the outcome of purely private local enterprise, being carried on by means of small tanks built entirely at the expense of the local proprietors. A new scheme for State irrigation, however, was started about two years ago with the construction of major and minor works, partly as aided projects and partly under the direct control of Government; and this important enterprise was energetically continued during 1903, some £63,330, being expended on protective and other irrigation works.

The results achieved include protective major works, consisting of six tanks under construction at Khairbanda, Asola Mendha, Dorli, Rumal, Likni, and Saighala; relief works represented by five important tanks at Marowda, Khapri-Aranda, Khola, Kusrangi, and Khaira-Datan; and minor works, consisting of embankments, in Saugor, Damoh, and Hoshangabad, besides tanks in the Balaghat District, South Wainganga Division, and Raipur. In addition, 22 tanks were under construction during the year under the grant-in-aid system.

The total area irrigated throughout the whole province during 1903–04 decreased from 549,000 acres in 1902–03 to 317,651 acres. This was due to the abundant rainfall throughout the year.

**Madras.** From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the season was unfavourable.

There are at present 9 major works and 33 minor works, for which capital and revenue accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 33 minor works for which full accounts are kept, 29 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,773 miles, and of distributary channels 7,666 miles. The area irrigated during the year by these works was 3,498,472 acres, the crops grown being valued at £5,607,881.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

| YEAR. | Capital Outlay. | Area Irrigated. | Net Actual Revenue. | Percentage of Net Revenue on Capital. |
|---|---|---|---|---|
| | £ | Acres. | £ | |
| 1899-1900 | 6,057,431 | 2,928,463 | 398,531 | 6·58 |
| 1900-01 | 6,136,629 | 3,426,374 | 444,521 | 7·24 |
| 1901-02 | 6,207,041 | 3,550,036 | 485,945 | 7·83 |
| 1902-03 | 6,299,896 | 3,525,034 | 480,595 | 7·63 |
| 1903-04 | 6,401,661 | 3,498,472 | 451,026 | 7·04 |

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to

old irrigation be added, the total amount will be £757,730. The decrease of revenue during the year was due chiefly to larger remissions made on account of damages caused by heavy floods, and to timely and abundant rains in certain districts. IRRIGATION.

The results of the year's working for the major works in operation are shown by the following figures:—

| WORK. | Area Irrigated. | Capital Outlay. | Net Revenue. | Percentage of Net Revenue on Capital. |
|---|---|---|---|---|
| | Acres. | £ | £ | |
| Godaveri Delta - - - - | 802,858 | 900,460 | 158,589 | 17·61 |
| Kistna Delta - - - - | 617,042 | 990,578 | 128,356 | 12·96 |
| Pennér Anicut - - - - | 162,134 | 424,456 | 19,822 | 4·67 |
| Kurnool-Cuddapah Canal - - | 46,306 | 1,450,821 | 6,762 | 0·46 |
| Barur Tank - - - - | 5,561 | 28,751 | —67 | — |
| Cauvery Delta - - - | 976,174 | 210,696 | 57,670 | 27·37 |
| Srivaikuntham Anicut - - - | 43,978 | 102,925 | 5,407 | 5·25 |
| Periyar Project - - - | 152,614 | 612,908 | 23,663 | 3·86 |
| Rushikulya (Protective Work) - - | 92,115 | 329,558 | 2,339 | 0·71 |
| Total - - | 2,898,782 | 5,051,153 | 402,541 | 7·97 |

The minor works for which full accounts are kept irrigated an area of 599,690 acres, and earned a net revenue of £48,485, equivalent to a percentage of 3·59 on the capital expended on them. The purely navigation works were in each case worked at a loss.

Besides the works referred to in the foregoing paragraphs there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The total irrigation revenue derived from these works in 1903–04 was £641,150, the net revenue being some £407,444, and the area irrigated by them was 3,594,696 acres. A plan for the systematic repair of some of these works has now been in progress for some years under the title of the "Tank Restoration Scheme," and is about two-fifths completed. Up to the end of the year an expenditure of £524,097 had been incurred under this scheme, and approximately 53,836 square miles had been investigated.

Numerous important projects, including the Periyár extension scheme, the Kistna reservoir project, and the Tungabhadra project, were under investigation during the year, though progress was somewhat retarded by the heavy rains towards the end of the season.

The capital expenditure for the year on the major works amounted to £69,580. This expenditure was incurred chiefly on the Kistna, Periyár, Godaveri, and Penner works.

In the Bombay Presidency, excluding Sind, the water system does not admit of the construction of large irrigation works. The rivers or streams are small, and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or "tanks." In Sind the success of the irrigation operations is dependent on the regular rise of the river Indus. Bombay, including Sind.

During the year, the total expenditure on irrigation in the Bombay presidency and Sind amounted to about £346,670 or £53,330 less than in the previous year. The decrease was confined to Sind, the expenditure in the Presidency proper showing an increase.

Of the works in Bombay, the Nira, Mutha, and Gokâk canals are the most important. A capital outlay of £18,633 was incurred on the Mutha Canals, but this was with the object of improving the existing service and not of extending the system. There was a slight improvement in the percentage of net revenue to expenditure on both the Nira and Mutha systems. In all divisions a satisfactory amount of work was done in connection with the construction and maintenance of small tanks. The need for irrigation was less felt, and the area irrigated showed a slight decrease. There was, however, a considerable increase in direct receipts on account of Imperial

IRRIGATION. irrigation works of all kinds. Operations in connection with the Nira, Gokâk, Krishna, Godaveri, and Ghat Tank surveys were carried on during the year with results which were on the whole favourable. The total area irrigated from the Gujerat and Deccan works, for which capital and revenue accounts are kept, was 87,819 acres against 99,290 acres in the previous year. The gross revenue rose from £51,563 in 1902–03 to £51,976.

In Sind the inundation was distinctly good, the water being above the fair irrigating level at the Bukkur Gauge for 54 days in all. The newly re-modelled Desert Canal and the almost complete Mahiwah system worked well, and the earnings of the latter were remarkable. Extensive masonry work was done on the Nasrat Canal, and considerable allotments were made to cultivators of lands irrigated by it and the Jamrao Canal. The high level of the river caused some trouble by silting up the canal mouths and causing breaches in the bunds.

The area irrigated by all classes of works in Sind was 3,151,807 acres against 2,625,671 acres in the previous year. The gross assessed revenue amounted to £488,914, of which £33,389 were on account of direct and £455,525 on account of indirect receipts, the corresponding figures for 1902–03 being £31,177 and £348,662 respectively.

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for water from the canals. This fact and the comparatively inexpensive nature of inundation canals, account for the favourable results obtained from the working of irrigation canals in the province.

North-West Frontier Province. The canals under provincial management continue to give good financial results, as do the water-courses in Peshawar owned by the District Board or under district management. In all the rivers, except the Bara and the Tochi, the supply of water during the year was fairly abundant.

The only "major" work is the Swat River Canal, a protective scheme with a length of 22 miles in the main and branch channels and 186 miles in distributaries. The capital expenditure on this work to the end of 1903–04 amounted to £277,951, and the net revenue for the year was £30,489 or nearly 11 per cent. on the capital cost. The area irrigated was 176,346 acres and exceeded that of 1902–03, the previous best on record by 2,574 acres.

The "minor" works in operation include the Kabul River Canal with a capital expenditure of £33,415, and the Bara River Irrigation Works. The net revenue for the Kabul River Canal was only £3,676 or £3,648 less than in 1902–03, the decrease being attributed to heavy expenditure on maintenance and repairs, and to a remission of £670 granted to villages affected by a breach in an aqueduct over the Zindai Nullah. The area irrigated by the canal was 29,427 acres.

Baluchistan. Irrigation in Baluchistan is represented by two "minor" works now in operation, viz., the Shebo Canal, which has cost £45,148, and the Khushdil Khan Reservoir with a total capital outlay of £67,126. Another scheme, the Anambar Flood Channel, costing £3,108, is now in working order, but so far nothing has been done in the way of irrigation owing to the Hazarah Colonists failing to come forward and take up land.

In the year under review the net revenue from the Shebo Canal amounted to £916 or 2·03 per cent. on the capital outlay, while the Khushdil Khan Reservoir showed net receipts of £466 or 0·69 per cent on the capital cost as against a loss of £675 recorded in the previous year.

The area irrigated by the Shebo Canal was 2,691 acres as compared with 2,939 acres in 1902–03. The Khushdil Khan Reservoir irrigated an area of 1,995 acres; in the previous year no water was available for cultivation. The total value of the crops raised was £8,112.

Coorg. The total outlay on Irrigation in Coorg during 1903–04 amounted to £837, and was devoted chiefly to the improvement of the Chikle Holé and Rangasamudra channels, and to the completion of the Devanur anicut which, however, was afterwards so seriously damaged by floods that its reconstruction has become necessary. The feasibility of extending the irrigation facilities of the Province formed the subject of special investigation during the year, and important developments may result.

Ajmer-Merwara. During the year 1903–04 the rainfall in Ajmer-Merwara was distinctly favourable; the tanks received a better supply of water and irrigated a larger

area than usual, viz., 32,957 acres. The estimated value of the crops raised was £51,560 as against £30,770 in 1902–03. IRRIGATION.

The total capital outlay at the end of the year amounted to £209,422, on which a return of 2·3 per cent. was earned in the period under review. Apart from the adjustment of the value (£9,434) of tools and plant purchased in previous famine years, working expenses were normal. The financial result of the year's working was satisfactory on the whole.

## BUILDINGS AND ROADS (CIVIL).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns. BUILDINGS AND ROADS (CIVIL).

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds. The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1903–04 under the heads referred to is shown in the following table :—

| — | Imperial. | Provincial. | Local. | Total in India. | Expenditure in England. | Grand Total. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Military works | 931,680 | — | — | 981,680 | 52,974 | 1,034,654 |
| Civil Works | 576,573 | 2,668,735 | 1,264,920 | 4,510,228 | 92,026 | 4,602,254 |
| Total, 1903-04 | 1,558,253 | 2,668,735 | 1,264,920 | 5,491,908 | 145,000 | 5,636,908 |
| Total, 1902-03 | 1,514,132 | 2,347,103 | 1,211,044 | 5,072,279 | 170,169 | 5,242,448 |
| Total, 1901-02 | 1,372,692 | 2,012,935 | 1,107,219 | 4,492,846 | 139,788 | 4,632,634 |

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to £27,054 in 1903–04. In 1901–02 and 1902–03 no expenditure occurred under this head.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

The following detailed account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on Civil Works was as follows :— Bengal.

| | £ |
|---|---|
| Imperial | 99,372 |
| Provincial | 507,017 |
| Local | 338,379 |
| Total | 944,768 |

BUILDINGS AND ROADS (CIVIL).

The want of accommodation for the bonding of salt at the Sulkea Salt golas was to some extent relieved by sub-dividing several of the golas. More room was provided in the opium godowns, Calcutta, for storing the large out-turn of the season; and a commencement was made in establishing weighment and settlement centres in the opium districts. The check station at Barrackpore in connection with the Magnetic Survey of India was finished; while the new Foreign and Military Secretariat building in Calcutta was almost completed.

Under Provincial Works, additional accommodation was provided for several of the Civil and Criminal Courts in the Province. The increasing requirements of the Calcutta High Court necessitated the purchase of adjoining premises. The construction of quarters for munsifs continued. The want of suitable circuit-houses at some of the important stations for the use of the Lieut.-Governor and other high officials was recognised; and steps were taken, where necessary, to provide such buildings. Of the various jail works, the most important was the commencement of the new Presidency jail at Alipore. The construction of quarters for Inspectors of Police was taken in hand. Educational works included projects for a new College and School of Engineering at Dacca; and much progress was made throughout the province in the erection of hostels or boarding-houses for students. Several houses were purchased or built for the residence of Government officials in stations where it is difficult to obtain house accommodation.

The opening out of road communications to meet the needs of the Tibet Mission was vigorously pushed forward. Roads to serve as feeders to railways in the districts of Midnapore, Nadia, Murshidabad, Rangpur, and Monghyr were under construction.

United Provinces of Agra and Oudh.

In the United Provinces of Agra and Oudh the outlay under the different heads of service was as follows:—

| | £ |
|---|---|
| Imperial - - - - | 36,006 |
| Provincial - - - | 334,435 |
| Local - - - - | 213,216 |
| Total - - | 583,657 |

The chief buildings under construction during the year included the new Kotwális at Lucknow and Moradabad, the Judges' Court House at Aligarh, the Court and Circuit houses at Jhansi, the Collegiate School at Benares and the Normal School at Gorakhpur. At Dehra considerable progress was made with the buildings for the Imperial Cadet Corps. As regards roads, the pilgrim routes in Garhwal were much improved and the work is being rapidly pressed on. Good progress was made with the large schemes for developing communications in Bundelkhand and Gorakhpur. Altogether 124 miles of new metalled roads were constructed, and the total length of roads metalled and unmetalled maintained by the Public Works Department and by local authorities during the year was over 30,700 miles.

Punjab.

In the Punjab the expenditure for the year on Civil Works was as follows:—

| | £ |
|---|---|
| Imperial - - - - | 81,619 |
| Provincial - - - | 292,314 |
| Local - - - - | 60,276 |
| Total - - | 434,209 |

During the year under review, the new General Post Office at Lahore was practically completed, and part of the establishment was moved in. Considerable progress was made with the new Imperial Civil Secretariat at Simla on which the year's outlay amounted to £16,867, bringing up the total expenditure on the work to £61,000. The "Kennedy House" estate at Simla was bought for £8,000 as a site for new offices, and the property known as "Windcliffe" as a residence for a Member of the Governor-General's Council. Combined post and telegraph offices at Sargoda and Mianwali, additions to the telegraph office at Umballa, and alterations to the Foreign Office at Simla were also carried out.

BUILDINGS AND ROADS (CIVIL).

Under the head of Provincial Civil Works, the Treasury Building and the Court House and Police Office at Mianwali were completed, new offices were built for the Inspectors of Schools at Jullundur and Mooltan, a new record room at Jullundur, new Court Houses at Ferozepore and Chunian, and a Female Lunatic Asylum at Lahore. The restoration of the Moti Masjid and of the Bhadon and Sawan buildings in the Delhi Fort was completed, and other interesting antiquities were put in order with a view to their maintenance as archæological monuments. Among the buildings in course of construction were new Normal Schools at Lahore and Delhi, District Jails at Mianwali and Lyallpur, and buildings for the new Civil station at Campbellpur.

A Contribution Work of some importance, viz., the Jubilee Hospital at Amritsar, costing £10,000, was nearly finished at the end of the year.

The construction of extensive new metalled roads was in progress in the Chenab and Jhelum Canal Colonies, though considerable difficulty was experienced owing to the scarcity of good stone. The improvement of the Hindustan-Tibet road was commenced and repairs to the feeder roads on the Southern Punjab and Ludhiana-Jakhal railways were completed. Boat bridges were maintained on all important through lines of communication, and the usual steam-ferry was worked over the Indus at Dera Ghazi Khan under the management of the North-Western Railway.

In addition to the above, the Public Works Department undertook important local works connected with the improvement of Simla, most of which are being carried out on a programme approved by the Government of India, the necessary funds being obtained partly from an Imperial and Provincial Grant, and partly from a Municipal loan.

The comparative expenditure on civil buildings and communications was as follows:—

| | Original Works. | Repairs. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Civil Buildings - - - - | 169,336 | 37,200 | 206,536 |
| Communications - - - - | 33,337 | 82,226 | 115,563 |

Including station roads, the total road mileage at the end of the year was 22,928 miles, viz., 2,054 miles metalled and 20,874 unmetalled.

There was no necessity to undertake any Famine Relief Works during the year, but a good deal of work was done on famine projects.

Burma.

In Burma the total expenditure on Civil Works for the year was:—

| | £ |
|---|---|
| Provincial - - - - | 641,413 |
| Local - - - | 84,990 |
| Total - - | 726,403 |

An important road, 37 miles long, connecting Moulmein with the Siamese State of Raheng was practically completed during the year. A metalled road, 25 miles long, from Bhamo towards the Chinese frontier on the north-east was nearly completed and a mule-track for the remaining 21 miles was improved. Several other roads were also in progress.

At the end of the year there were 1,603 miles of metalled and 7,766 miles of unmetalled roads in the province outside municipal limits.

No important buildings were constructed during the year.

Central Provinces and Berar.

The amount of the expenditure for the year was:—

| | £ |
|---|---|
| Imperial - - - | 45,781 |
| Provincial - - - - | 186,684 |
| Local - - - | 28,144 |
| Total - - | 260,609 |

No Imperial works of any importance were undertaken beyond the construction of a few post offices. Of the expenditure on Provincial roads

BUILDINGS AND ROADS (CIVIL).

and buildings, about £83,333 was spent on original works, including the construction of Government offices and of residences for Government officials. Considerable sums were also allotted for additions to jails, police buildings and public asylums, and to the improvement of schools. Ample provision was made for the extension of roads, and their construction was in progress in all parts of the province, but more especially in the Hoshangabad, Nagpur and Eastern Divisions. The Victoria Technical Institute in Nagpur, begun in 1902 as a Contribution Work, was steadily proceeded with, the expenditure at the end of the year reaching £6,733.

The output in the Warora Colliery during the year amounted to 116,900 tons, or a decrease of 33,439 tons as compared with the preceding year. The net profit was £11,385, equal to a return of 11·58 per cent. on the capital expenditure, which may be considered very satisfactory.

Assam.

The total expenditure in Assam for the year was as follows:—

| | £ |
|---|---|
| Imperial | 2,464 |
| Provincial | 165,685 |
| Local | 40,762 |
| Total | 208,911 |

The most important buildings in hand were the new Government House, Shillong, which was completed, and the residence for the Judge of the Assam Valley Districts. Considerable expenditure was incurred on Educational buildings, amongst which may be mentioned the completion of a school building at Shillong and the commencement of a High School and a Vernacular school building at Nowgong. The restoration of the old Assamese protective bunds or embankments in the Sibsagar and Lakhimpur districts was vigorously prosecuted, over £8,900 having been expended on the work during the year. Under communications, works of importance were the restoration of the Shillong-Cherra cart road, the improvement of the Gauhati-Shillong road to adapt it for motor traffic, and the metalling of the Dimapur-Manipur road. Four roads feeding the Assam Valley section of the Assam-Bengal Railway were taken up. Progress has been made in replacing temporary bridges by permanent structures.

Madras.

In Madras the expenditure for the year on Civil Works was as follows:—

| | £ |
|---|---|
| Imperial | 4,415 |
| Provincial | 217,575 |
| Local | 335,464 |
| Total | 557,454 |

There were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

The principal buildings under construction were a Collector's office at Cocanada, a weaving shed in the Central Jail at Coimbatore estimated to cost about £5,300, a building to house the Photospectro Heliograph at Kodaikanal and a Bacteriological Laboratory at Guindy. Increased attention was given to the protection and preservation of important archæological remains, including the Asoka rock inscriptions and the rock cut caves at Guntupalli in the Godavari district.

Under the head of Communications, a few important roads are in the hands of the Provincial Public Works Department, and the Koraput-Jeypore road in the Vizagapatam Agency was taken over during the year. Extensive improvements were in progress on the Tellicherry-Coorg road involving a total expenditure during the year of £6,697. Repairs to the Anamalaighat road and to the Calicut-Mysore frontier road were completed, and a commencement was made on the feeder roads on the Shevaroys to connect the planting districts with the ghat road to Salem. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department.

BUILDINGS AND ROADS (CIVIL).

They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 23,773 miles of road were maintained by public authorities, apart from roads and streets within municipal limits.

A scheme was prepared during the year for providing a water supply for the town of Salem by building an anicut across the Periyar stream and a bund across the Varatta to form a reservoir. The Tuticorin water supply works were also in progress, and the Tiger Hill reservoir at Ootacamund was completed and handed over to the municipality.

In connection with the scheme for the better illumination of the coasts and the dangerous rocks and shoals in their vicinity, 16 lighthouses were completed in the year under review, and the lighthouse division was closed as a separate charge, construction operations having been suspended.

Bombay.

The expenditure on Civil Works in the Buildings and Roads branch in the Bombay Presidency for 1903–04 was as follows :—

| | £ |
|---|---|
| Imperial | 40,560 |
| Provincial | 323,611 |
| Local | 154,178 |
| Total | 518,349 |

The total outlay on public works during the year showed a further decline, occurring wholly under the head of Imperial works and due to the cessation of Famine relief works. The figures of Provincial and Local Funds expenditure were both considerably in excess of those of the preceding year.

The principal buildings in course of construction were the new Observatory at Alibág, combined Post and Telegraph Offices at Thana and Ahmednagar and Signallers' quarters at Bhusáwal, a Branch Custom House at Prince's Dock and the extension of the Paper Currency Building at Bombay, a Collector's Office with Treasury and Accounts Offices at Lárkhána, Excise warehouses at Ahmednagar and Vita, Male and Female Training Colleges at Poona, a new High School at Ahmedabad, a Civil Hospital at Dhulia and extensions of St. George's Hospital, Sir Jamsetjee Jejeebhoy Hospital and Grant Medical College, Bombay, besides numerous new land revenue and police buildings throughout the Presidency. Considerable sums were also expended on the repair and maintenance of archæological remains.

The Provincial lines of communication on which expenditure was incurred during 1903–04 included a number of new metalled and unmetalled roads in all divisions. The work of reconstructing the Koney bridge at Karwar and the bridge on the Poona-Bangalore road in the Belgaum district was commenced, and new ferry boats were built at Mahuli and at Umbraj.

The Local Fund works consisted of roads, school buildings, and miscellaneous water-supply works carried out through the agency of the Public Works Department.

Coorg.

The expenditure on Civil Works in Coorg was as follows :—

| | £ |
|---|---|
| Imperial | 13,575 |
| Local | 2,385 |
| Total | 15,960 |

The expenditure on civil buildings amounted to £1,809 and consisted chiefly of charges for ordinary annual repairs, and outlay on the construction or extension of police lines, quarters for revenue subordinates, and structural alterations in the headquarter offices at Mercara. A sum of £9,290 was spent on communications. Considerable progress was made with the construction of the new road connecting South Coorg with the Malabar-Wynaad, but with the exception of an inspection bungalow at Napoklu, no new work of importance was taken up, the major portion of the outlay being devoted to the maintenance of existing communications.

BUILDINGS AND ROADS (CIVIL).

In addition to the outlay relating to Imperial Works, the Public Works Department incurred an expenditure of some £2,200 on communications, buildings and other works under the control of the Coorg District Board.

N.W. Frontier Province.

In the North-West Frontier Province, the expenditure for the year on Civil Works was as follows :—

| | £ |
|---|---|
| Imperial - - - - - - | 140,732 |
| Local - - - - - - | 4,376 |
| Total - - - | 145,108 |

Of this total sum £87,668 was spent on communications and £32,961 on civil buildings. The new buildings necessitated by the creation of the Province have been practically completed, and little remains to be done. The official residences in Peshawar were occupied during the winter. The continuation of the policy of the withdrawal of troops has necessitated the building of new posts and the alteration of others in Northern and Southern Waziristan. The bridges over the Kharmana in Kurram and the Dore in Abbotabad were completed. The metalling is being steadily carried on of the road from Abbotabad to the Kashmir border near Domel. The camel road to Landi Kotal through the Mullagori country was completed and the work of widening it into a cart road is well advanced. Work on the road between Dera Ismail Khan and Zhob through the Chuhar Khal Dhana was interrupted by the necessity of a realignment between Dera Ismail Khan and Draband.

Baluchistan.

In Baluchistan a sum of £28,525 was expended from Imperial funds on Civil Works during the year.

Ajmer-Merwara.

In Ajmer-Merwara the total expenditure on Public Works (other than irrigation and railways) during 1903-04 amounted to £7,625 as against £6,538 in 1902–03. The chief items of expenditure were buildings for "Law and Justice," £1,593 ; buildings for the Revenue Department, £70 ; buildings for the Educational Department, £799 ; roads, £3,091 ; and establishment, tools and plant, £1,473. The restoration of Shah Jehan's marble Baradaris on the Anasagar embankment and of the Arhai din-ka-Jhonpra was entirely completed during the year.

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

### Post Office.

Post Office.

The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

| Year. | Receipts. | Expenditure. | Net Revenue. |
|---|---|---|---|
| | £ | £ | £ |
| 1901-02 - - - - | 1,383,709 | 1,280,624 | 103,085 |
| 1902-03 - - - | 1,429,935 | 1,346,778 | 83,157 |
| 1903-04 - - - | 1,507,810 | 1,403,870 | 103,940 |

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1903–04 would be £140,180.

The extent of the operations of the Post Office, and their development during the last three years, are shown in the tables in the margin. These include the figures for the district post, of which the Post Offices number 1,886; the letter-boxes 5,208, and the village postmen 2,824.

| Year. | Post Offices. | Letter Boxes. | Village Postmen. | Length* of Postal Lines. |
|---|---|---|---|---|
| | No. | No. | No | No. |
| 1901-02 - - - - | 13,845 | 28,902 | 7,944 | 136,954 |
| 1902-03 - - - | 14,736 | 31,071 | 8,135 | 139,814 |
| 1903-04 - - | 15,403 | 34,005 | 8,242 | 145,027 |
| Increase in 1903-4 over 1902-1903 - - - - | 667 | 2,934 | 107 | 5,213 |

* Including the Bombay-Aden line.

Of the total length of postal lines, 35,802 miles belonged to the district post and 1,342 miles were political lines administered by the Imperial Post Office. The increase was greatest in the Punjab and North West Frontier Province.

| Year. | Letters (including Postcards). | Newspapers. | Book and Pattern Packets. | Parcels. | Total. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1901-02 - - | 495,692,031 | 31,550,052 | 29,712,460 | 2,991,304 | 559,945,847 |
| 1902-03 - - | 520,558,125 | 32,558,132 | 32,708,771 | 3,472,338 | 589,297,416 |
| 1903-04 - - | 559,345,660 | 34,262,838 | 34,351,819 | 3,941,809 | 631,902,126 |
| Increase in 1903-04 over 1902-1903 - - | 38,787,535 | 3,347,704 | | 469,471 | 42,604,710 |

The general correspondence returns, of which a summary is given in the margin, show an increase of 42 millions of articles (excluding money orders) carried by post in 1903–04, as compared with the figures for 1902–1903. Of the additional articles over 18 millions were postcards, the total number of which exceeded that of paid letters.

During the year under review the maximum size permitted for private postcards was raised, and the weight of registered newspaper that may be sent for ¼ anna was increased.

The total number of articles received for delivery, including money orders, was over 948 millions, of which 95·22 per cent. were delivered against 97·84 in the preceding year.

POST OFFICE.

The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 4,680,403; of this number 1,132,936 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,534,420 were returned to the senders, and 1,321,002 could not be disposed of. This last figure is under 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles not disposed of were from their nature not capable of delivery.

The letters and postcards despatched from India to the United Kingdom in 1903–04 are estimated at 5,145,517, against 4,504,674 in 1902–03, or an increase of 14·23 per cent. Those received in India from the United Kingdom are estimated at 5,909,780, against 5,446,218 in the previous year, or an increase of 8·51 per cent. These figures show a considerable increase, though not so rapid as during previous years since the introduction of the penny postage in 1898. As in previous years, the increase is attributed largely to the growing use of pictorial postcards.

The newspapers, book packets, and samples despatched home from India showed an increase of 4 per cent., and the number of such articles received in India from the United Kingdom showed an increase of 2¼ per cent.

The number of parcels exchanged with the United Kingdom rose from 231,097 in 1902–03 to 260,950—an increase of 12 per cent. This formed over 61 per cent. of the whole foreign parcel traffic. They were mostly sent *viâ* Gibraltar, but about a ninth were sent by the quicker Brindisi route. In the exchange of parcels with other countries there was again a satisfactory development of the traffic in both directions, an addition of 12·7 per cent. having been made to the number of parcels. The increase in the number of parcels sent to non-European countries is again to be attributed in great measure to the steady growth of the parcel post with Ceylon, to which inland rates apply, and with Egypt. On 1st January 1904 India adopted the "Triple Scale" rates of the cheap Imperial Parcels Post scheme for the interchange of parcels with Great Britain. The same rates have since been adopted by her as regards several other parts of the British Empire. It is anticipated that the cheapness and simplicity of the "Triple Scale" rates will greatly stimulate the parcels traffic where it is adopted.

The receipts from the insurance of letters and parcels were £18,285, as compared with £16,930 in the preceding year. There was an increase of 8·32 per cent. in the number of articles insured and of 7·61 per cent. in their value.

The average value for which each article was insured was, in the case of letters, Rs. 223, as compared with Rs. 232 in the previous year, and in that of parcels, Rs. 255, against Rs. 254 in 1902–03.

The number of claims for compensation preferred in respect of insured articles was 23, as compared with 45 in the preceding year. Seventeen claims were admitted, the loss being due in each case to fraud or negligence on the part of the servants of the Post Office. This involved the payment of £170 or ·93 per cent. of the total amount realised from insurance fees, against a percentage of 3·88 in the preceding year. Of the six claims not admitted, two were definitely rejected, and four were pending at the close of the year.

The business of the value-payable past continues to show considerable progress. The number of articles sent was 3,886,297, and the amount declared for recovery by the Post Office from the addressees was over £3,000,000, the commission on which was £42,651. There was an increase of 16·39 per cent. in the number of articles, of 11½ per cent. in the value specified for recovery, and of 7·61 per cent. in the commission realised. Calcutta was responsible for nearly one-third of the entire business. The number of value-payable articles posted at the Calcutta General Post Office and its town sub-offices was over 1,200,000; and this department collected on the delivery of these articles a sum of over £900,000.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 50,913 value-payable articles were dispatched from India to Ceylon, as compared with 47,948 articles in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 11. 11. 0, as compared with Rs. 12. 3. 3 in 1902–03.

The reduction in 1902 in the commission on money orders not exceeding Rs. 5, while causing a great increase in the money order business, resulted in a diminution during 1902–03 of the receipts realised. During 1903–04, however, the commission realised reached the highest point recorded, namely, £226,140, as against £219,811 in 1902–03 and £225,797 in 1901–02. At the same time the number and value of inland money orders issued in India, including telegraphic money orders but excluding transactions with Native States, increased from 15,311,955 and £18,547,845 respectively to 16,470,115 and £19,623,942. The average value of an inland money order was Rs. 17. 14., against Rs. 18. 2. in the previous year. This continual fall in the average price of money orders and value-payable articles is considered satisfactory, as showing that both systems are becoming popular among a poorer class. The circles of Bengal, the United Provinces, and Madras are responsible for about half of the total money order business.

The above figures include the special classes of money order for payment of revenue, rent, and miscellaneous Government dues. These show an increase in most of the provinces where they are issued.

Revenue orders are issued in Bengal, the United Provinces, the Central Provinces, the Punjab and the North-Western Frontier Province. The amount issued under this head rose from £638,000 in 1902–03 to £712,500 in 1903–04.

Rent money orders are issued in Bengal, the United Provinces, and Central Provinces: the issues under this head rose from £158,000 to £173,000.

Orders for miscellaneous Government dues are issued in Bengal, the United Provinces, the Punjab, the North-Western Frontier Province, Madras, and Burma: the amount issued fell from £240,000 to £208,000.

The number and value of money orders paid in Native States were respectively 67,593 and £113,214, against 63,504 and £106,571 in the previous year; and the number and value of issues in the States were 109,771 and £159,620, as compared with 105,554 and £157,770 in 1902–03. The excess of the issues by the States over the payments is again mainly due to the large issues of the Gwalior State.

The number of telegraphic money orders issued in 1903–04 was 191,100 for £1,330,523, as compared with 181,016 orders for £1,293,881 in the preceding year. The average value of a telegraphic money order was Rs. 104. 6. 11., against Rs. 107. 3. 5. in 1902–03.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling. The rates of commission on such orders were reduced during the year under consideration. The number of these orders issued by India rose from 98,896 in 1902–03 to 108,475 in 1903–04, and the value increased from £330,330 to £335,992, while the orders paid in India increased in number from 79,581 to 93,447, and in amount from £519,297 to £617,958, of which nearly £400,000 was remitted from South Africa. Of the total sterling money order transactions, all except about £50,000 was with the United Kingdom and British colonies and possessions.

The average value of a sterling money order issued by India was £3 1*s.* 11*d.* as compared with £3 6*s.* 10*d.* in 1902–03, and that of a sterling money order paid in India was £6 12*s.* 3*d.*, as compared with £6 10*s.* 6*d.*

The money order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from £63,029 in 1902–03 to £68,058 in 1903–04, and the orders paid by India rose from £476,982 to £490,125—in spite of the great falling-off of remittances from East Africa, due to the return of Indian labourers on the completion of the work on the Uganda Railway.

POST OFFICE.

Including inland and foreign money orders, both ordinary and telegraphic, the total of the money orders issued by the India Post Office in 1903–04 amounted to £20,141,206, against £19,047,775 in 1902–03, and the total of payments to £20,895,046, against £19,673,430 in the preceding year.

At the close of the year there were 7,372 offices performing savings bank business, against 7,075 in the preceding year. The number of accounts in the Post Office savings banks rose from 922,353 to 987,635, the deposits, exclusive of transfers from one post office to another, from £2,897,347 to £3,108,685, and the withdrawals from £2,621,097 to £2,733,656; and the interest rose from £216,704 to £233,050. The balance at the credit of depositors at the close of 1903–04 stood at £8,222,448 against £7,614,370 at the close of 1902–1903. The average balance at the credit of each depositor was Rs. 124·88, as compared with Rs. 123·83 in the previous year. The table in the margin shows the number of depositors in different classes for the years 1902–03 and 1903–04.

| Class of Depositors. | Average Number of Deposits. | | |
|---|---|---|---|
| | 1902 03. | 1903–04. | Increase. |
| I. Professional - | 308,262 | 324,583 | 16,321 |
| II. Domestic - | 161,346 | 175,602 | 14,256 |
| III. Commercial - | 34,123 | 37,930 | 3,807 |
| IV. Agricultural - | 15,065 | 16,431 | 1,366 |
| V. Industrial - | 30,928 | 32,602 | 1,674 |
| VI. Indefinite - | 372,629 | 400,487 | 27,858 |
| Total - - | 922,353 | 987,635 | 65,282 |

During 1903–04 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £25,700, against £25,500 in the preceding year; and the balance of securities held by the Comptroller-General on behalf of depositors at the close of the year was £83,100, compared with £78,000 on the 31st March 1903.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show an increase of about 9,900 packets over the previous year.

The total number of Native army pensioners whose pensions were paid through the Post Office in the Punjab and North-West Frontier Province during the year was 29,959, as compared with 29,328 in 1902–03.

During the year under review 1,568 new policies of the aggregate value of £140,338 were granted by the Postal Insurance Fund, and of these 1,313 were Endowment Assurance Policies, of the total value of £114,835. Ninety-eight claims, amounting in all to £9,946, were paid on the death of insured persons. At the close of 1903–04 there were 8,414 active policies in existence (3,175 held by Post Office servants and 5,239 by servants of other Departments), and the aggregate sum insured was £864,202. Nine life annuities were purchased by local funds for their servants under Article 807 of the Civil Service Regulations.

During the year under review there were 18 cases in which the mails were plundered by highway robbers, of which 15 were in British territory, and 3 in Native States. The figures for the preceding year were 32 and 24 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 437, of which 211 were dealt with departmentally, while legal convictions were obtained in the remaining 226 cases. The defalcations and losses amounted to £1,681, as compared with £2,310 in 1902–03. A sum of £906 was recovered from the offenders or their sureties; £279 was charged against the Post Office Guarantee Fund; and £446 remained unadjusted at the close of the year. The subscriptions to the Guarantee Fund realised from Post Office and District Post Officials during the year amounted to £2,090, and the balance at the credit of the fund at the close of the year was £63,900.

The number of complaints made by the public was 31,329, against 28,284 in the previous year. In 34·55 per cent. of the whole number the complaints were ascertained to be well founded; 39·98 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year, or no definite conclusion had been arrived at.

POST OFFICE.

Special postal arrangements were made in December 1903 for the Tibet Mission, which entailed much hard work and responsibility on the staff by which they were carried out; and Field Service postal establishments were maintained in Somaliland and Northern China during the year under review.

The Postal arrangements of the Native state of Bikanir in Rajputana were amalgamated with the Imperial Post in the course of the year.

The Parcels Post has been extended to the Somaliland Protectorate, the British Agency at Chefoo, North West Rhodesia, Timor, the German Offices at Kiaochau, Nankin, and Hschang, and certain places in Portuguese East Africa. The Imperial Penny Postage scheme has also been extended to the first two of the above places.

A new fast mail steamer service has been introduced between Karachi and the principal ports of the Persian Gulf, and direct mail communication has been established between Burma and Yunnan *via* Bhamo.

The shortest time occupied in transit by the mail from London to Bombay was 13 days 7 hours and 53 minutes, while the average time for the year was 13 days 23 hours and 43 minutes. The quickest transit from Bombay to London was 13 days 1 hours and 5 minutes, while the average time for the year was 14 days 2 hours and 21 minutes.

## TELEGRAPHS.

TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 59,692 miles of line, 212,330 miles of wire, and 292 miles of cable.

The gross receipts, which in the previous year aggregated £749,392, fell to £741,866 in 1903–04, owing to a considerable decrease in the message and miscellaneous revenue. The decrease in the value of telegrams was not, however, associated with a corresponding decrease in their number, for while the value decreased by 1·87 per cent., their number increased by 8·38 per cent. Working expenses rose by £9,290, due mainly to an increase in the signalling establishment, and to an improvement in the pay and allowances of that class. The net revenue for the year showed a decrease of £16,816, as compared with that for 1902–03.

A reduction of the rates for inland telegrams was brought into force on 1st January 1904, and resulted in a large increase in private and press traffic. There was, however, a decrease in State traffic, attributed to the inflation of last year's traffic owing to the Delhi Coronation Durbar.

A reduction in the rates between Australia and countries in the East and Far East—including India, Burma and Ceylon—also came into operation on 1st June 1903, and a reduction in the Europe-China rates from 15th July of the same year.

During the year under review £244,629 was added to the capital expenditure, of which £216,388 was in respect of additions to the system comprising 2,862 miles of line and 11,797 miles of wire (including cable). Of the balance, £13,701 was on account of buildings and £9,288 on account of apparatus and plant. The total capital outlay at the close of the year stood at £5,549,210.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 6,091, of which 4,790 were maintained by the Department. The net addition to the number of offices during the year was 439.

In connection with the movements of the Sikkim-Tibet Mission, field telegraphs aggregating 284 miles of line carrying 376 miles of wire were erected during the year, and at its close they comprised 223 miles of line, 315 miles of wire, and 15 offices.

TELEGRAPHS.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| —— | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1899-1900 | 4,347,705 | 51,769 | 160,650 | 275 | 1,719 | 2,980 | 4,699 |
| During 1899-1900 - - | *163,234 | 1,140 | 10,116 | 8 | 132 | 117 | 249 |
| „ 1900-1901 - - | 217,289 | 2,146 | 11,117 | 13 | 88 | 142 | 230 |
| „ 1901-02 - - | 247,741 | 772 | 8,721 | −13 | 67 | 47 | 114 |
| „ 1902-03 - - - | 328,612 | 1,003 | 9 663 | −16 | 45 | 315 | 360 |
| „ 1903-04 - - | 244,629 | 2,862 | 11,771 | 25 | 76 | 363 | 439 |
| To end of 1903-04 - - | 5,549,210 | 59,692 | 212,038 | 292 | 2,127 | 3,964 | 6,091 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1903–1904, in comparison with the results of the four previous years' working, will be gained from the following statement :—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1899 1900 - - | 6,237,301 | 681,942 | 447,758 | 234,184 | 34·34 | 5·19 |
| 1900-1901 - - | 6,449,372 | 753,764 | 472,262 | 281,502 | 37·34 | 5·95 |
| 1901-02 - - | 6,475,545 | 730,395 | 503,338 | 227,057 | 31·08 | 4·56 |
| 1902-03 - - - | 6,742,094 | 737,211 | 528,982 | 208,229 | 28·24 | 3·92 |
| 1903-04 - - - | 7,307,087 | 730,994 | 538,272 | 192,722 | 26·37 | 3·47 |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India.

The total number of paid telegrams sent in 1903–04 amounted to 7,307,087, as compared with 6,742,094 in 1902–03, showing an increase of 564,993 or 8·38 per cent. There was, however, mainly owing to a reduction of rates, a decrease in the value of these messages amounting to £9,708 or 1·69 per cent.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :—

| Class of Telegram. | 1902-03. | | 1903-04. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State - - | 858,864 | 143,574 | 812,490 | 120,997 |
| Foreign State - - - | 16,544 | 7,348 | 16,296 | 7,707* |
| Total State - - | 875,408 | 150,922 | 828,786 | 128,704 |
| Inland Private - - - | 4,981,794 | 291,339 | 5,581,297 | 303,705 |
| Foreign Private - - | 884,892 | 132,722 | 897,004 | 132,867* |
| Total Private - - | 5,866,686 | 424,061 | 6,478,301 | 436,572 |
| Total State and Private | 6,742,094 | 574,983 | 7,307,087 | 565,276 |

* These figures were affected by the opening of the American Pacific cable from San Francisco to Manila on 25th July 1903, the reduction of rates between India and Australia from 1st June 1903, and the reduction of Europe-China rates from 15th July 1903.

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In Inland private traffic there has been an increase of 599,503 or 12·03 per cent. in number, and £12,366 or 4·24 per cent. in value. The figures for the year are the highest ever recorded. The increase in value is proportionately less than that in number, on account of the cheaper inland tariff introduced from 1st January 1904.

The following statement shows the development of the revenue from inland private traffic for the last 10 years :—

| | £ |
|---|---|
| 1894–95 | 214,398 |
| 1895–96 | 231,637 |
| 1896–97 | 249,228 |
| 1897–98 | 263,573 |
| 1898–99 | 244,915 |
| 1899–1900 | 294,485 |
| 1900–1901 | 294,071 |
| 1901–02 | 278,106 |
| 1902–03 | 291,339 |
| 1903–04 | 303,705 |

Inland State telegrams show a decrease of 46,374 or 5·39 per cent. in number and £22,577 or 15·72 per cent. in value, due principally to the previous year having been an exceptional one for State traffic.

In Foreign Private telegrams, which include press and all foreign transit traffic, there has been an increase of 12,112 or 1·36 per cent. in number, and £145 or ·10 per cent. in the Indian share of their value. An analysis of this traffic for 1902–03 and 1903–04 discloses the fact that whereas the volume of "sent" and "received" traffic has increased by 591,587 words and its value by £9,834, the amount of "transit" traffic has decreased by 540,479 words and its value by £9,491. This decrease is due to the opening of alternative routes.

During the eight months of the year under review in which the new San Francisco-Manila cable has been in use, there has been a decrease, as compared with the corresponding period of the previous year, of 335,687 words in the traffic between America and the Far East passing through India, representing a loss of about £4,700. On the other hand, the through rate between Europe and China was reduced with effect from 15th July 1903, and this, together with the Russo-Japanese war, has resulted in an increase of 302,361 words, representing an Indian transit share of about £4,233 in the Anglo-Chinese traffic passing over the Indian lines.

Foreign State telegrams show a decrease of 248 or 1·49 per cent. in number, but an increase of £359 or 4·88 per cent. in value.

The total number of press telegrams was 45,653, and their value £11,479, namely, 39,089 inland valued at £9,582, and 6,564 foreign, of which the Indian share of the value was £1,897. Comparing the figures of the year with those of its predecessor, press inland traffic shows a decrease of 3,578 or 8·39 per cent. in number, and £2,048 or 17·60 per cent. in value; and press foreign traffic shows an increase of 394 or 6·38 per cent. in number, but a decrease of £169 or 8·27 per cent. in the Indian share of its value. The large decrease in the number and value of press inland messages is attributable mainly to the revised inland tariff, and to the largely extended use of the multiple telegram since the introduction of the revised rates, under which a copying fee only of four annas ($\frac{1}{4}d.$) per 100 words is levied for each address after the first, even when the offices of the several newspapers to which the multiple telegram is addressed are located in different towns. The figures under the head "foreign" represent the number of press telegrams to and from India, and the Indian share of their value, transit traffic to and from countries to the east and west of India being excluded.

The gross receipts of the Telephone Companies during the year 1903 amounted to £34,299, an increase of £2,468 as compared with the previous year. Their average annual earnings during the past five years amount to £30,695.

The subscriptions to the Telegraph Department for telephone and similar services rendered during the same calendar year amounted to £13,046, being

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£1,656 more than the amount of the previous year. The average annual subscriptions for the past five years amount to £11,251.

Communication with Europe *viâ* Suez was maintained uninterruptedly during the year. The Teheran route was interrupted for 207 hours in all as compared with 222 hours in the previous year, while the Turkish route was interrupted for 429 hours, as against 870 hours in 1902–03.

The proportion of international traffic to and from India, exclusive of transit traffic, over the several routes to Europe for the year 1903–04 was as follows :—

| — | Per cent. | |
|---|---|---|
| | No. | Words. |
| Indo-European :— | | |
| Viâ Teheran | 47·35 | 50·48 |
| Viâ Turkey | 1·65 | 1·27 |
| Persian Gulf, viâ Karachi | 1·58 | 2·10 |
| Red Sea :— | | |
| Viâ Suez | 49·42 | 46·15 |
| Total | 100·00 | 100·00 |

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

Telegraphic communication with the Cape by the cables along the East Coast of Africa was maintained without interruption throughout the year.

As regards the East, communication with the Straits Settlements was maintained uninterruptedly during the year by the cables of the Eastern Extension Telegraph Company.

The land route to China *viâ* Bhamo was interrupted beyond the Indian frontier for 48 days in the aggregate, against 59 days in the previous year. There were no interruptions within the Indian frontier.

Communication with Siam over the Moulmein-Bangkok line *viâ* Kanburi was interrupted for 47 days, as against 31 days in the previous year. The line from Moulmein to Raheng *viâ* Myawaddy was interrupted for 11 days, as compared with 12 days in the previous year. There were three interruptions, lasting 3 days, within Indian limits.

Events of interest during the year were the meeting of the International Telegraph Convention in London in 1903, the reduction of rates between Australia and certain countries in the East and Far East (including India, Burma and Ceylon) from 1st June 1903, the revision of the inland tariff in India on 1st January 1904, the opening of an alternative route for tariff transiting India, viz., the Commercial Pacific cable between San Francisco and Manila, on 25th July 1903, and the reduction of the rates between Europe and China from 15th July 1903.

## INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of two sections. One, designated the Persian Gulf Section, extends by cable from Karachi to Bushire, Jask to Muscat, and Bushire to Fao, where a connection is made with the Ottoman Government line, and by land lies along the Mekran Coast from Jask to Gwadur, and thence to Karachi; while the other, called the Persian Section, consists of land lines, running from Bushire to Teheran. The system comprises 1,938 knots of cable, 1,391 miles of line and 3,472 miles of wire, exclusive of the Persian Government line from Teheran to Meshed, 568 miles, which is maintained by the Department.

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The construction of a line, known as the Central Persia line, from Kashan to the Eastern frontier of Persia, under the terms of a Convention with Persia dated 16th August 1901, which was commenced on 2nd December 1902, and of which 141·25 miles had been completed by 31st March 1903, was continued during 1903–4 through Yezd, Anar, Kerman and Bam to a point 25 miles beyond Bam, and 596 miles distant from Kashan. Beyond this a single wire line was constructed to form a connection with the Indian line from Quetta to Robat, and 48·5 miles of this light line had been completed on the 31st March 1904.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London in 1893, and placed under the direct orders of the Secretary of State. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

| YEAR. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1899–1900 - - | 766,736 | 102,541 | 56,234 | 46,307 | 6·02 | 54·84 |
| 1900 01 - - | 771,680 | 116,825 | 56,244 | 60,581 | 7·85 | 48·14 |
| 1901-02 - - | 818,747 | 121,936 | 57,310 | 64,626 | 7·89 | 47·00 |
| 1902 03 - - | 872,730 | 99,158 | 59,853 | 39,305 | 4·50 | 60·36 |
| 1903–04 - - | 913,320 | 107,173 | 61,749 | 45,424 | 4·97 | 57·61 |

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the Joint Purse arrangement.

During the year under review the Capital Account was increased by a net amount of £40,590. A net expenditure of £43,462 was incurred on the construction of the new Central Persia line, but as a partial set off against this, there occurred certain credits in connection with the laying of the Jask-Muscat cable in 1901–02.

The gross earnings of the Department show an increase of £8,015 as compared with 1902–03; the figures are, however, still much below those for the years 1900–01 and 1901–02. This is due principally to the reduction of the rates between Europe and India, and to the opening of the new Pacific cables, which have diverted to themselves a good deal of traffic which formerly would have had to cross India.

The expenditure shows an increase of £1,896, due almost entirely to heavy repairs to cables during the year, and to the increased cost of establishment and maintenance in the Persian Section in consequence of the opening during the year of two more sub-sections and six new offices of the Central Persia line.

The net result is a profit of £45,424, or 4·97 per cent. on the total capital expenditure, as compared with 4·50 per cent. realised last year. The capital outlay on the Central Persia line is as yet wholly unproductive.

The number of messages forwarded during the year amounted to 189,706, being an increase of 11,456 or 6·43 per cent. over that for 1902–03.

Under the Joint Purse Agreement, the share of the Department was £5,919 more than last year, being £116,963 as against £111,044 in 1902–03. The amount paid into the Joint Purse, for the year under review was £71,151.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The Departmental receipts from the Australasian Message Fund for 1903–04 amounted to £5,268, being £1,021 less than in 1902–03, and a decrease of £967 as compared with those for 1889, on which the original Australasian Message Fund was based.

The results of the year's working may be considered generally satisfactory. Delays and errors were not serious, except on the Turkish route between Constantinople and Fao, which continued to be worked unsatisfactorily. The Department was liable to the Joint Purse for 23 days interruptions between Constantinople and Bushire. Acts of wilful damage continue to increase, aggregating 713 and involving a sum of Krans 14,560 of which Krans. 9,100 were recovered locally and the balance claimed from the Persian Government.

# CHAPTER XIII.

## EDUCATION, LITERATURE, AND THE PRESS.



### EDUCATION.

Educational institutions in India are of two classes :—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The year 1903–04 was a notable one in the history of education in India. After careful investigation by a Commission, a Bill to amend the constitution of the Universities of the country was prepared and passed into law. In March 1904, the Government of India, in a comprehensive resolution, reviewed the whole history of education in the past, and declared the policy of the Government for the future. These two important events call for some special notice.

Universities Act, 1904.

The main purpose of the Universities Act is to confer upon the five Universities of Calcutta, Bombay, Madras, Allahabad and the Punjab, a working constitution, and to invest them with the general powers which are required to enable them to control and supervise higher education in accordance with the principles and policy approved by the Government of India. That policy is, in brief, to substitute for a system which provides merely for examining students in those subjects to which their aptitudes direct them, a system which compels them also to study those subjects systematically under efficient instruction and supervision. The constitution and method of selection of the controlling authorities of the Universities are carefully revised and defined by the Act, and detailed rules are laid down in regard to the important function, which the reformed Universities will have to discharge, of making recommendations to the Government for the affiliation or disaffiliation of colleges. Only those students who have completed a course of instruction in an affiliated college can offer themselves as candidates at a University examination, and only those colleges are eligible for affiliation

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which comply with certain conditions laid down in regard to (*inter alia*) their governing bodies, the qualifications of their teaching staff, their financial condition, their buildings and accommodation, the possession of a library, facilities for practical instruction in science, and due supervision of students. Provision is also made for the periodical inspection of affiliated colleges. Wide power is given to the Senates, with the sanction of the Government, to make regulations to provide for matters relating to the promotion of advanced study and to the residence and conduct of students generally.

The Resolution on Education.

The following is a brief summary of some of the more important points of the Government of India's Resolution:—Measures will be taken to counteract the abuse of examinations. In future there will be only two examinations preceding the University course—the primary examination, which will mark the completion of the lowest stage of instruction, and the secondary, which will take place at the end of the secondary course. The system of assessing grants to aided schools upon the results shown by examination will be replaced by more equitable tests of general efficiency. The multiplication of competitive tests for Government service is discouraged. The scheme of primary education, the development of which is to be fostered by increased financial assistance, is set forth in detail. It may be noted that it is definitely declared that English should have no place therein; as a general rule it is considered that a child should not be allowed to learn English as a language until he has received a thorough grounding in his mother tongue. As regards secondary education, the evils of the purely literary course are pointed out, and it is declared to be essential to promote diversified types of secondary education, corresponding with the varying needs of practical life. The ethics of education are discussed, and the settled policy is announced of abstention from interference with the religious instruction given in aided schools, while in Government institutions instruction must continue to be exclusively secular. Moral teaching is to be sought from a high standard of discipline, the proper selection of text-books, and the general association of teachers with pupils in daily life. It is hoped to make progress against the peculiar difficulties involved in female education by the establishment of model primary girls' schools at important centres, by an increase in the number of training schools and the staff of inspectresses, and by the encouragement by grants-in-aid of missionary effort, especially zenana teaching. The future of University education is dealt with in the preceding paragraph; it may be added that the Government of India promise a liberal increase of expenditure from public funds. Provision will be made for the further development of the education of Europeans and Eurasians, and of the system of Chiefs' Colleges, where the sons of ruling Chiefs are prepared for the duties that await them. Assistance is to be given to technical education in the form of scholarships to selected students to enable them to pursue a course of technical education in Europe or America. Schools of art and commercial education receive attention. An attempt will be made to remedy the admitted defects of industrial schools, and the courses of study will be so ordered as not to lend themselves to the manufacture of clerks, but to bear exclusively upon carefully selected industries. Agricultural education—an important subject—is to be reorganised and expanded. Great importance is attached by the Government of India to the provision of hostels, or boarding houses, under proper supervision, in connection with colleges and secondary schools. Lastly, it is proposed substantially to increase the educational staff, and measures will be taken with a view to securing that most essential condition of the reform of secondary education—the training of teachers in the art of teaching.

Bengal.

The total number of institutions in Bengal at the end of the year was 63,100, with 1,892,874 pupils, as compared with 63,629 institutions and 1,754,655 pupils in the previous year. The increase was again confined to public institutions, private institutions having decreased by 613. Of the total number of pupils, 1,777,265 were in public and 115,609 in private institutions. A comparison with the figures of 1894–95 shows that during the past ten years there was a loss of 3,641 institutions, but a gain of 251,355 pupils. These figures may be accepted as indicating solid and satisfactory progress, as they probably mean that many small and inefficient schools have closed their doors and their pupils have transferred themselves to more

efficient institutions. The proportion of scholars to the estimated population of school-going age increased during the year under review from 28·2 per cent. to 30 per cent. in the case of boys, and from 2·2 per cent. to 2·8 per cent. in the case of girls. The total expenditure on education from all sources was £924,360 as against £903,119 in 1902–03. This amount was contributed in the following proportions:—Provincial revenues, 23·3 per cent.; district funds, 12·6 per cent.; municipal funds, ·8 per cent.; fees, 43·1 per cent.; all other sources, 20·2 per cent. Primary schools for Indian boys showed a further increase of 1,677 institutions and 105,584 pupils —a satisfactory feature, following as it does the large increase in 1902–03. The figures for secondary education show little variation from those of the previous year, but it may be noted that the results of the entrance examination were rather unsatisfactory, the number of candidates having increased, while the number who were successful decreased. As regards University education, the number of Arts colleges increased by one to 46, and the total number of students remained practically the same. The results of the University examinations were somewhat disappointing—partly, no doubt, owing to the fact that the tests, which had been generally recognised as rather low, were raised by the examiners. There was a substantial increase during the year in the number of institutions for the education of Indian females, and in the number of pupils attending them. Two measures of importance in connection with female education were carried out during the year, the one being the opening of training classes for Hindu and Muhammadan widows, and the other the extension of the system of zenana teachers. A further increase of 11 per cent. in the number of Muhammadan pupils under instruction took place, and important results are anticipated from a scheme for developing the indigenous Muhammadan schools which exist throughout the province. The number of training schools for teachers in primary schools showed a considerable increase, but many more are urgently required. EDUCATION.

There were in the United Provinces at the end of the year 14,709 institutions with 502,882 scholars. The total number of schools cannot well be compared with that in the previous year, owing to the reversion to the old plan of reckoning the primary and secondary classes of one school as one school instead of two, in accordance with the orders of the Government of India. The figures show general progress, the total increase of scholars being 9,751. There was an increase of 3,708 Brâhman scholars, and altogether of 8,159 Hindus. The increase among Muhammadans was 1,228, while Native Christians were returned as 84 less than in the previous year. The percentage of children under instruction to those of school-going age was, for the first time in the history of the province, more than 7. For boys it was 12·91, and for girls ·75, instead of 12·76 and ·63 respectively in 1902–03. The total expenditure on education from all sources was £347,651, an increase of £8,555 on the previous year. In spite of the widespread prevalence of plague, the number of scholars receiving primary instruction showed a further increase of nearly 7,000 during the year, the total number of boys in primary schools being 378,277. The improvement occurred mainly in State schools. There was, however, a remarkable falling off in the number of candidates at primary examinations, which it is difficult to explain. Secondary schools for boys increased by 5 to 508, and their attendance rose to 23,856. The number of candidates appearing for the entrance examination of the Allahabad University showed an increase on last year's figure, and the general results of the University examinations during the year were exceptionally favourable. The question of placing the finances of the University on a satisfactory footing was postponed until the new conditions of working under the Universities Act should be determined. Female education showed a considerable advance, there being 800 institutions for girls with 26,048 scholars, as against 658 schools with 21,887 scholars in 1902–03. But the high castes show no readiness to send their daughters to school, though there is some demand for peripatetic governesses. Among the educational measures of the year, mention may be made of the revision of the curriculum of English schools, and of the grant-in-aid rules applicable to them. The two great objects on which attention is now being concentrated are the improving of the teaching staff, and the introduction of a new and more efficient system of inspection. United Provinces.

EDUCATION. Punjab.

The total number of public institutions in the Punjab (including Native States) rose from 3,230 to 3,246, and their attendance from 193,529 to 194,915. The number of private institutions fell from 4,825 to 4,701, while their attendance increased from 76,010 to 76,315. The total expenditure on education in British territory was £261,204, an increase of £22,440 as compared with that of the previous year. To this expenditure Imperial revenues contributed 3·5 per cent., provincial revenues 32·2 per cent., district and municipal funds 23·4 per cent., fees 24·8 per cent., and other sources 14·1 per cent. In Native States £13,241 was spent, of which 85 per cent. came from State revenues. There were 14 colleges in British territory and 4 in Native States, and a considerable increase took place in the number of students. The number of secondary schools in British territory fell from 332 to 326, and the number of pupils from 59,961 to 59,654. The decrease was confined to boys' schools; girls' schools showed a slight increase. In Native States secondary schools increased from 51 to 53, and pupils from 7,604 to 7,855. Primary schools showed a total increase of 17, and the number of pupils rose by 1,217 to 123,048. The attendance at schools for special instruction increased from 2,356 to 2,490. The number of candidates appearing for the various Arts examinations of the Punjab University was 825 as against 885 in the previous year, but the percentage of passes was slightly higher. The decrease in the number of students taking Law examinations, and the increase in the number studying medicine continued. Female education showed an advance from 15,546 to 16,668 in the number of girls attending public schools, and the total number of girls under instruction was 29,376. The number of Muhammadans receiving instruction rose from 111,616 to 112,855, but it is noticeable that the increase occurs in private and not in public schools. The numbers of Hindus and Sikhs under instruction also increased to 105,052 and 22,795 respectively. The educational results of the year were, on the whole, eminently satisfactory, and the best guarantee for further progress is the remarkable and steady increase in the number of qualified teachers, both male and female. The policy of the Government to have a Government model school at the head-quarters of each district, which was being inaugurated at the end of the year, will, it is hoped, result in affording a useful example to other schools in each district. An important event of the year was the holding of an educational exhibition for the first time at Lahore, which appears to have largely stimulated interest in education.

Burma.

In Burma, the statistics on the whole indicate further progress. The total number of institutions, public and private, rose from 18,931 to 19,716, and the attendance from 331,525 to 347,135. More than half the pupils were in public institutions. The total expenditure increased from £151,600 to £159,382. The portion of this expenditure borne by provincial funds shows an incease of £6,122; that borne by fees an increase of £4,307, and that borne by local funds an increase of £1,163, while the amounts attributable to municipal funds and to "other sources" decreased by £100 and £3,719 respectively. The Rangoon College had an attendance of 166 as against 160 in 1902-03, and of its candidates 7 out of 20 were successful in the B.A., and 16 out of 75 in the F.A. examination. From the Baptist College, which had 28 students, 7 went up for the F.A. examination, and 2 passed. There were in all 392 secondary schools with 37,773 pupils, and 4,925 primary schools with 146,763 pupils. These figures show in every case a considerable advance on those of the previous year, and the large increase in the number of pupils undergoing primary education is specially satisfactory. Steps have been taken towards the enouragement of Vernacular primary education by improving the terms offered to the managers who open schools in parts where schools have not been opened, by raising the status of itinerant teachers, and by the framing of a new Vernacular curriculum. Female education made very good progress. While an increase of 5 per cent. in the number of girls in public institutions was shown by the returns of 1902–03, a further increase of 12 per cent. took place during the year under review; the total number being 43,017. In private instutidions there were 4,449 girls as against 4,125 in the previous year. Muhammadan education showed some advance, the number of Muhammadans under instruction rising from 9,733 to 10,475. The school for the sons of *Sawbwas* at Taunggyi in

the Southern Shan States continued to be popular, and contained at the end of year 82 pupils. The appointment of a fifth inspector of schools, who is to have charge of European education and training schools was sanctioned during the year. Progress was made in giving effect to the educational policy of the Government of India, first by the revision of indigenous schools with the object of providing instruction of a more practical character and more suited to the needs of agriculturists, and secondly by steps being taken in the direction of substituting for result grants a system of grants framed on the lines approved by the Simla Conference. EDUCATION.

The statistics of Berar were for the first time amalgamated with those of the Central Provinces in accordance with the orders of the Local Government. Educational progress received a considerable check from plague and from the local scarcity which existed early in the year in portions of the Central Provinces; but, in spite of these obstacles, the results of the year show a considerable advance on the previous year. In the Central Provinces there was a nominal decrease in the number of schools, owing to a difference in the system of classification; actually the number of schools increased, and the number of pupils rose from 141,067 to 145,929. In Berar there was an actual decrease, both in schools and in pupils, owing to the prevalence of plague, while in the Feudatory States, where there was no plague, there was an increase of 4,000 in the number of pupils. The total number of schools in the Central Provinces and Berar, including Feudatory States, was 3,585, and the total attendance 219,931, the latter figure showing an increase of over 7,000 on the previous year. The percentage of scholars to children of school-going age was 10 as against 9·7 in the year 1902–03. In British territory the percentage was 18·7 for boys and 1·3 for girls in the Central Provinces, and 23·8 for boys and 1·3 for girls in Berar. The total expenditure in British territory was £116,876 as compared with £115,777 in the previous year. Of this 35·9 per cent. was met from provincial funds, 37·5 per cent. from district funds, 6·2 per cent. from municipal funds, 9·4 per cent. from fees, and 10·9 per cent. from other sources. Different classes of education shared as follows:—Collegiate education, 3·5 per cent.; secondary education, 22·3 per cent.; primary education, 42·8 per cent.; technical education, 5 per cent. The average number enrolled in colleges fell from 277 to 266, owing to the poor success of the schools at the entrance examination, a circumstance which was attributed to the interruption of school work caused by plague. The total number of public secondary schools was 449, with an attendance of 40,691. There were in British territory in the Central Provinces 1,772 primary schools, an increase of 22 on the previous year, and the attendance also increased. In Berar there was an actual decrease of 85 primary schools and 7,079 scholars, a fact which is mainly attributable to plague. To turn to female education, there was an actual increase of 15 girls' schools in British territory in the Central Provinces, and the number on the rolls increased from 8,464 to 8,885. In Berar the number of girls' schools fell by 3, and the attendance decreased from 1,520 to 1,292. The principal feature of the year's educational work was, of course, the addition of Berar to the Central Provinces, and steps were taken to assimilate the Berar system to that of the Central Provinces. The most important changes introduced in Berar were the abolition of the result-grant system, the conversion of rural schools into board schools, and the provincialization of girls' schools. Central Provinces and Berar.

The number of public institutions in Assam was 3,005, and the number of pupils 100,274, as against 3,101 institutions with 101,097 pupils in 1902–03. The decrease was mainly due to the closure of certain schools owing to their proximity to other schools, and also to the disappearance of certain unaided schools which could not be assisted owing to their unsatisfactory condition. The number of private schools decreased from 3,395 to 3,232, and their attendance from 107,889 to 106,280. The percentage of pupils to population of school-going age was 20·8 in the case of boys and 1·45 in the case of girls. It is noteworthy that pupils have increased in number in each of the stages in which English is taught, but have fallen off in purely Vernacular courses. This is significant as indicating increased Assam.

EDUCATION. appreciation of the practical value of a knowledge of English on the part of the middle classes of the people. The total expenditure during the year was £64,358 as against £53,415 in the previous year. Of this, £20,561 was borne by provincial revenues, £22,453 by local and municipal funds, £11,574 by fees, and £9,602 by private sources. Primary schools for boys numbered 2,682 with 80,757 pupils, as compared with 2,722 schools with 81,191 pupils in 1902–03, but for the most part this decline is nominal only, the result of a closer scrutiny of the returns. Secondary schools decreased from 148 to 143, but their attendance rose from 14,567 to 14,765, the increase taking place in the number of pupils at high schools. The Murarichand College in Sylhet and the Gauhati State Cotton College—the two second-grade colleges in Assam—sent up 25 and 52 students respectively for the First Arts examination, of whom 14 and 10 respectively were successful. Girls' schools fell in number from 171 to 140, and the number of girls under instruction decreased to 6,263, but this decline also is attributed partly to a more careful scrutiny of the returns.

Coorg. Coorg had at the end of the year 88 public schools, with 4,020 pupils in attendance, the latter total being somewhat smaller than that for the previous year—a decrease which is attributable partly, if not wholly, to the effect of plague at Virajendrapet and Sirangela. With three exceptions, one normal and two secondary, all were primary schools. Private institutions numbered 33, and their attendance was reported to be 579, both figures showing an increase on the year 1902–03. The percentage of scholars among the population of school-going age was 15·7 for boys and 4·5 for girls. The total expenditure was £2,649, or £136 less than in the previous year. The educational system of the province underwent no material change during the period under review, but the working of the department was simplified by the promulgation of rules for the management and inspection of local fund and municipal schools, defining the exact functions of the local bodies and Government officers concerned.

North-West Frontier Province. The number of public institutions in the North-West Frontier Province rose from 199 to 206, and of pupils from 13,468 to 13,975. The number of private schools also showed an increase, rising during the year from 727 to 744, and their attendance from 12,378 to 12,464. The increase was confined to private schools which aim at more than the teaching of religious books by rote. The total number under instruction constituted 7·9 per cent. of the population of school-going age. The total expenditure was £12,726, an increase of £1,882. The increase was confined to the head "Indirect Expenditure," and was mainly due to the appointment of an Inspector-General of Education, to larger outlay on buildings, and to an increased number of Scholarships. The Edwardes Church Mission College at Peshawar had 17 students, as against 20 at the end of 1902–03. Secondary schools fell from 26 to 25, and their attendance showed a nominal decrease from 5,174 to 5,078. Primary schools for boys number 172, or eight more than in the previous year, with an increased attendance of 8,302. The number of girls under instruction rose from 2,104 to 2,225. Of these only 578 were being educated in public schools.

Madras. The total number of educational institutions, public and private, of all grades in Madras, rose from 26,334 to 26,771, and the average number on the rolls, counting all classes of institutions, increased from 847,525 to 875,051. Of the total population of school-going age, 27·8 per cent. of the boys and 4·8 per cent. of the girls were under instruction. The percentage of scholars to population of school-going age rose slightly in the Northern Circars and Central and Southern Districts and fell in the rest, the total percentage being 16·1 as against 15·4 in the previous year. The proportion of scholars in the lower primary stage was 83·7 of the total number. The expenditure on public instruction from all sources rose from £565,430 to £594,086, of which £168,521 was provided by Government, £62,506 by district boards, £17,231 by municipal councils, £191,599 from fees, and £154,228 from endowments and miscellaneous receipts. Over 57 per cent. of the total expenditure related, as in the previous year, to secondary and primary education. First grade and second grade colleges numbered respectively 11 and 29, as in 1902–03; the strength of the former increased,

but that of the latter declined slightly. The three colleges specially intended for women had 14 students, while 23 women attended the men's colleges. The number of candidates admitted to degrees in the several faculties of the Madras University was 656, as against 676 in the previous year, the decrease occurring chiefly among those taking the degree of Bachelor of Laws. For the M.A. examination 12 candidates out of 38 were successful. Upper secondary schools for boys increased by 9, and their strength from 48,067 to 49,887. In the lower secondary stage there were, in all classes of institutions, 42,524 scholars, an increase of nearly 3,000 during the year. There were 25 upper and 170 lower secondary schools for girls. The former figure is the same as in 1902–03, and the attendance slightly declined; the latter figure shows an increase of 4, and the attendance rose considerably. The total number of girls in the secondary stage of instruction at the close of the year was 4,447 as against 4,213 in the previous year. The number of public primary schools advanced from 18,637 to 19,246 in the case of boys' schools, and from 769 to 811 in the case of girls' schools, and the attendance in each instance showed a marked improvement. The total numbers of boys and girls in the primary stage of instruction were, respectively, 630,878 and 121,090 as against 595,098 and 114,752 in 1902–03. The system of paying fixed and result grants at the sanctioned rate, which began in the previous year, was continued in the year under review, and the very considerable increase in the number of pupils in primary schools may be attributed to this cause. Technical, industrial and art schools increased in number, and there was a corresponding increase in their strength. At the Government technical examinations there was a further and very marked increase in the number of subject candidates, while the number that passed rose from 2,271 to 2,326, but fell in percentage from 40 to 38. There was a further decline from 2,070 to 2,024 in the total number of institutions for Muhammadans, but this did not affect their strength, which rose from 79,065 to 80,054.

**Bombay.**

The ravages of plague again severely affected the educational record of the Bombay Presidency. In spite of this, the year is considered to have been remarkable for educational activity and progress, and for the shaping of schemes and inauguration of expenditure, which are full of promise for the future. The statistics of the year are of little value as a guide to the spread of education, owing to the constant closing of institutions on account of plague. The total number of educational institutions in Bombay and Sind was 12,460, with an attendance of 578,360, the figures of the previous year being 12,218 and 599,708 respectively. Of these, 9,887 institutions, with 513,479 pupils, were public. The total expenditure from all sources rose from £547,785 to £571,296. There were 10 Arts colleges, and 5 professional colleges, as in the year 1902–03, with a considerably increased total attendance of 3,454 students, of whom 677, including 45 women, were at the Grant Medical College. Technical schools and colleges generally showed an increased number of students. The number of night schools, which had been decreasing during the years immediately preceding that under review, increased from 100 to 110. Secondary schools for boys rose by 2 to 424, while primary schools for boys increased from 8,260 to 8,452; the attendances in the two classes of schools being 40,924 and 410,400 respectively. The large decrease in the number of pupils is attributed to the enormous havoc and dislocation caused by plague in the districts attacked by it. The total expenditure on secondary education for boys was £114,878, and on primary education £213,325. To these sums provincial revenues contributed £23,891 and £63,615 respectively. The total number of girls under instruction during the year was 75,647, of whom 70,612 were in primary schools, and 34,003 in the lowest stage. In Arts colleges and other special schools there were 361 female students, 239 of whom were in training schools. The total expenditure on female education rose from £51,726 to £61,627, the contribution from provincial revenues being £13,933. The number of Muhammadans under instruction was 127,551 as against 129,711 in the previous year, but the number in colleges and training schools showed a marked increase, so that there was a distinct improvement where it is most desired. The Yeràvda Reformatory School contained 137 boys at the end of the year. Special features of the educational work of the year which may be mentioned were the revision of the Vernacular reading series by a committee

EDUCATION. of experts, the provision of a secondary training college in Bombay, and the enlargement of the Vernacular training colleges, including the erection of a new building for the college at Poona. The grant-in-aid code was carefully revised during the year, in conformity with the principles laid down at the Simla Conference, and the system of payment by results was finally abolished.

LITERATURE.

## LITERATURE AND THE PRESS.

| | English. | Bi-lingual (English and another Language). | Sanskrit. | Arabic. | Persian. | Urdu. | Hindi | Bengali. | Punjabi. | Marathi. | Gujarati. | Tamil. | Telugu. | Burmese. | Kanarese. | Assamese. | Uriya. | Bi-lingual (Oriental) in a Classical and Vernacular Language. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Madras | 459 | — | 94 | — | 1 | 1 | — | — | — | 1 | — | 317 | 229 | — | 39 | — | 33 | |
| Bombay | 66 | 62 | 2 | 5 | — | 34 | 42 | — | 1 | 127 | 254 | — | — | — | 5 | — | — | 56, mostly Sanskrit and Hindi or Gujarathi. |
| Bengal | 270 | 176 | 102 | 1 | 1 | 36 | 175 | 1,356 | — | — | — | — | — | — | — | 42 | 185 | 178, mostly Bengali and Sanskrit. |
| United Provinces. | Figures not available | | | | | | | | | | | | | | | | | (Total number of publications, 1,409.) |
| Punjab | 120 | 18 | 19 | 32 | 28 | 601 | 108 | — | 397 | — | — | — | — | — | — | — | — | 95, including 27 Arabic-Urdu. |
| Burma | 5 | 5 | — | — | — | 1 | — | 1 | — | — | — | 1 | — | 68 | — | — | — | 43 (Pali and Burmese). |
| Central Provinces. | 2 | 4 | — | — | — | — | 12 | — | — | 7 | — | — | — | — | — | — | 7 | |
| Assam | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | 6 | — | 1 (Latin and Khasi). |
| Mysore | 2 | 2 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | |

*Note.*—The figures for Madras include 358 periodicals, and those for the Punjab 129 periodicals; in other Provinces books alone are shown.

The above table gives concisely the number of publications registered throughout India in European, Eastern classical and the principal Indian Vernacular languages. The number of bi-lingual and polyglot works, however, makes classification difficult. In Madras, the total number of works in more than one language was 143, but how this number was made up does not appear. Other languages in which books were published were Malayalam (39), Tulu and Sourashtra (in Madras); Gurmukhi, Jari and Marwadi (in Bombay); Ho, Mundari, Musalmani-Bengali, Oraon, Santali, Ao-Naga, Garo, Manipuri, Mikir and Tangkhul-Naga (in Bengal and Assam); Balti, Gorkhali, Kashmiri, Pashto and Tibetan (in the Punjab); Sgau-Karen, Shan and Kachin (in Burma); Konkani (in Madras and Bombay); Khasi (in Bengal and Assam); Pali (in Bengal and Burma); and Sindhi (in Bombay and the Punjab).

Bengal. The number of publications received in the Bengal library during 1903 was 2,887 against 3,366 in 1902. The decrease was due to the fact that cases of evasion of book registration were no longer reported to the Inspector-General of Registration. Of the total number of publications received, 2,117 were books and 770 periodicals. Of the books, 1,832 were original publications, and 285 republications and translations. As regards language, Bengali claims a large majority of publications, English coming next. The output in Uriya and Hindi was also considerable. As in the previous year, religion was the most popular subject, being represented by 395 original publications, and 702 republications and translations. Language, poetry, fiction and mathematical science followed next in order, and history and drama were also fairly represented with 50 and 57 original publications respectively. There appears to be considerable room for improvement in the character and scope of the Bengali drama, especially the popular "social farces." Some productions of superior merit are, however, noted, especially the '*Pratapaditya*,' a historical drama, by Babu Kshirod Prasad Vidyavinod, and a tragedy entitled '*Tarabai*," by Babu Dvijendra Lal Ray. In this latter play, which is written in a highly moral and chivalrous key, the influence of Shakespeare is distinctly visible. Bengali fiction continues at a low general level, but Rai Haran Chandra Rakshit Saheb's '*Rani Bhavani*,' which aims at teaching religion and morality through the medium of fiction, indicates a new departure. In some other novels a welcome tendency appears towards spontaneous development of plot, instead of the

employment of the usual supernatural agency. Among translations, versions of "She" and the "Vicar of Wakefield" may be mentioned. In the latter, in which the vicar appears as a village zamindar, the attempt to give a native air to the story is not very convincing. Some of the lyric poetry published during the year was said to be excellent. LITERATURE.

The total number of publications in the United Provinces was 1,409, of which 1,072 were original works. The subjects most in favour were poetry (328), religion (290), language (127), and fiction (74). There is a growing tendency among Hindi writers to adopt a simpler style instead of the highly artificial and pedantic one formerly in vogue. Poetical works published during the year, the majority of which were translations from Sanskrit, included a translation of Macaulay's "Horatius." Original Hindi poems were mostly religious rhapsodies or exotic effusions of no particular merit. Hindi fiction was insignificant, but Urdu authors, on the other hand, mainly devoted themselves to novel writing. Many of their productions are written with a special purpose, depicting social evils, or expressing the author's views on such vexed subjects as the neglect of female education, or the favourite theme of the introduction of courtship. Next in popularity to novel writing comes history, but in this domain Muhammadan writers are to be found almost alone. Under the head of drama a translation of the "Midsummer Night's Dream" is included. Among Urdu biographies, Lives of Queen Victoria, Edward VII., and Napoleon's mother may be mentioned. Most of the religious publications in Urdu and Hindi are depressing reading, harping as they do on the theme of a lost golden age. Of English publications the only piece of literature in the proper sense was the "Humorous Sketches" of the Indian Juvenal, Mr. S. Bose. United Provinces.

The total number of books and periodicals catalogued in the Punjab during the year was 1,478, as against 1,233 in 1902. As usual, Urdu and Punjabi works largely predominated. Poetry continued to have the largest number of books, 425; religion, with 409, came next. Very fair increase was noted in biographies and in fiction. The novel rises steadily in popularity, and the year was remarkable for the appearance of an excellent work in English by a Hindu lady, Mrs. Susila Tahl Ram, in which the story is used as a vehicle to convey the writer's views on the great social problems of the day. There was, however, little to recommend in the annually increasing volume of verse. Urdu poetry is in a state of transition, and has not yet entirely succeeded in shaking itself free from the shackles of past conventionalism. The subject of religion has a peculiar charm for authors, and a number of books showing considerable industry and erudition may be found amongst the mass of literature published on this subject. There is a decided improvement in the style of some of the biographies (which include a translation of the Life of Lord Roberts), but authors have not yet learned to detach themselves from personal likes and dislikes. Of the 129 periodicals, 56 were legal. As compared with the preceding year, the number of journals was more than doubled. Punjab.

The total number of publications registered in Madras was 1,217, an increase of 55 on 1902. The increase is confined to "Original Works," and occurs chiefly in publications in English and other European languages. As regards subjects, drama, language, medicine and religion showed a decrease, while other subjects showed more or less an advance, the largest increase being in poetry. Among other publications may be mentioned "The Coronation Ballad of the Boer War," written by M. Dinakar in celebration of the prowess of the British Army. There were several works of fiction of considerable merit, of which the best was '*Padmini*,' by Mr. P. Ramakrishna, author of "Life in an Indian Village." The evils prevalent in Hindu society were the theme of several novels; the title of one of these, "The Mother-in-Law in Council," suggests the line which they adopt. Of dramatic works few had any pretentions to originality, and the majority of those were of doubtful moral tone. Taken as a whole, the publications of the year can hardly be said to show any marked progress of thought or originality, but there were sufficient indications of the effect of the civilisation, the science, and the social ideals of the West on Indian thought and feeling. To judge from the fairly successful attempts at English verse by Native Madras.

LITERATURE. writers, it would appear that educated Indians are gradually acquiring a better appreciation of poetic form and sentiment. More noticeable is the advance of thought and feeling in regard to social life, as is evidenced by the more frequent and strenuous advocacy of the emancipation of women and the condemnation of the evils prevalent in Hindu society. At the same time it must be admitted that there were signs in some of the works of the year of a reactionary spirit against reform on Western lines, and a tendency to glorify the past and revert to ancient national ideals.

Bombay. The literary output of the year in Bombay was, on the whole, of mediocre merit and small interest. The total number of publications registered was 1,273 as against 1,334 in 1902. The number of books was 692. Of these, 66 were written in English, 254 in Gujarathi and 127 in Marathi. Poetry and religion were the most popular subjects. Fiction increased from 35 to 48. A book which attracted considerable attention was the "Arctic Home in the Vale," by Mr. B. G. Tilak, who undertakes to prove by explanations of certain passages in the *Rigveda* that the ancient Aryans lived near the North Pole. Among Sanskrit books an edition of the '*Ekavali*,' by Mr. K. P. Trivedi, was said to display conspicuous ability. Gujarathi and Marathi publications did not, on the whole, rise to a very high level, but Mr. N. S. Pavgi produced a scholarly treatise of high literary merit on the history and development of Hindu Drama. The dramatic works of the year include a very fair translation of "King Lear," but the original dramas are not of a high order. They are usually based on ancient myths and supported by miraculous incidents, some of which—as, for instance, when a Brahman saint induces a stone bull to eat grass—must entail considerable difficulties in stage representation. In fiction, as well as in drama, there was little tendency towards new ideas and the development of the imagination; most of the novels are borrowed from English sources. In the field of poetry, an excellent volume of Gujarathi poems by Nanalal Dalpatram Kavi should be mentioned, and, in particular, commendation is given to the "Jubilee Ode to the late Queen-Empress" and the "Coronation Ode to the King-Emperor."

Other Provinces. In Burma 146 publications were registered, of which religion claimed 61 and drama 32. As regards language, Burmese with 68 and Pali-Burmese with 43 books were predominant. Assam produced altogether 6 books as against 37 in the previous year. The publications in other provinces call for no comment; in Coorg none was registered.

# CHAPTER XIV.

## EMIGRATION AND MIGRATION.

EMIGRATION.

### EMIGRATION.

Emigration from India, so far as it is brought under the cognisance of Government, is mainly regulated by Act XXI. of 1883 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government in East and Central Africa, is, however, excepted from the restrictions of the Act. By Section 8 of this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of Indian immigrants. A similar protection was extended by Act X. of 1902 to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. The Local Government is now empowered, before permitting such emigration, to impose such terms and conditions as it considers necessary in each case. Emigration otherwise than under contract to labour or work in one of the above capacities is not controlled by legislation. Emigration.

The most important administrative measure undertaken during the year in connection with emigration from Calcutta was the framing of rules under Act X. of 1902, referred to above, regulating the engagement of persons for the purposes specified in the Act. These rules were finally sanctioned by the Governor-General in Council on the 9th March 1904. Calcutta.

There were six emigration agencies at work during the year, all representing British Colonies, the agency for the Dutch Colony of Surinam having suspended operations. The total number of labourers requisitioned fell from 10,455 in 1902 to 9,893 in 1903, the most marked decrease being in the number required for Natal, which showed a return to the normal after the abnormally high figure of 1902. Mauritius, on the other hand, showed a greatly increased demand of 1,030, as against 570 in the previous year, but no emigrants were shipped to that colony, as it was found impossible to comply with the instructions of the Mauritius Government that all emigrants should arrive not later than the 30th November. The total number of labourers sent from Calcutta during the year was 8,794. The number of recruiting licences granted was 1,370, as compared with 1,445 in 1902, and of these only 30, or 2·1 per cent. of the whole, were subsequently cancelled. The recruiters, who conducted their operations in the same places as in the preceding year, collected altogether 12,403 emigrants during the year. This number was contributed by the different provinces in the following proportions :—United Provinces, 61·7 per cent.; Central Provinces 16 per cent.; Punjab 7·8 per cent.; Bengal, 5·8 per cent.; Bihar, 5·5 per cent.; Ajmere, 2 per cent.

The number of emigrants admitted to the Calcutta depôts was 10,787. Of the remainder, 625 were rejected subsequently to registration as unfit to emigrate, while 359 were discharged as surplus. The percentage of deaths in the depôts (·26) was much smaller than in the preceding year. The percentage of rejections, on the other hand, was 8·01, as against 7·44 in 1902. This increase is chiefly attributable to stricter medical examination of emigrants in the depôts before embarkation, but it may also point to the fact that the medical examination of emigrants at the sub-depôts was not performed with sufficient care. After deducting casualties of all kinds, there remained 9,141 emigrants available for despatch to the colonies, of whom 9,084 were shipped during the year, as against 10,882 in the previous year. They were distributed as follows: Demerara, 2,937; Trinidad, 2,449; Jamaica, 663; Natal, 1,801; Fiji, 1,234. The total number shipped included 2,509 women and 378 returned emigrants who re-emigrated. The death rate

EMIGRATION.

on the ships carrying emigrants was ·65 per cent., 18 out of the 39 deaths which occurred being due to cerebro-spinal fever.

The number of emigrants who returned from the several colonies was 4,686, and their ascertained aggregate savings amounted to upwards of £52,109. The average savings per head varied from £20 10*s.* in Fiji, to £1 5*s.* in Mauritius. But 1,050 adults—22·4 per cent of the total number of returned emigrants—brought back no savings.

The amounts remitted to India by emigrants resident in the colonies again indicated a high degree of prosperity among the Indian population in Natal, although the average remittance per emigrant (£1 6s.) was not quite so high as in the year 1902. Fiji was the only other colony where the average remittance per emigrant (Re. 1.11.3, or about 2*s.* 3*d.*) exceeded one rupee.

Madras.

The numbers of emigrants embarking from Madras for Natal and Mauritius respectively were 2,544 and 510, as compared with 4,094 and 1,785 in 1902–03, while 598 were shipped for Fiji. As in the previous year, the large decrease in the number of emigrants for Natal and Mauritius was due to the favourable character of the season. The bulk of the emigrants came from the North Arcot and Madras districts. There was no emigration to the French colonies during the year. One thousand three hundred and twenty-nine emigrants returned from Natal with savings amounting to £23,931, and 201 returned from Mauritius. The savings of the latter only amounted to £288, many of them being paupers.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements increased from 19,622 to 22,960, most of whom started from ports in the Tanjore district. There was a large increase in the number of passengers to Burma and Ceylon, but it was impossible to distinguish emigrants from ordinary passengers.

Bombay.

The number of registered emigrants who left the port of Bombay during the year was 62; of these three went as artisans to Chinde, and 59 went for exhibition purposes to the St. Louis Exhibition. From the port of Karachi only 25 artisans embarked for Mombasa during the year, the demand for coolie labour having ceased with the completion of the Uganda railway. The figures for both ports' show that there was practically no real emigration during the rear.

MIGRATION.

## MIGRATION.

Assam.

Assam imports from the other provinces of India the greater part of the labour force employed on tea-gardens, in the oil refinery at Digboi, in coal-mines, and in a few saw-mills in Upper Assam. The total labour population directly dependent on these industries numbered 657,106 at the end of June 1904, the year for which labour statistics are tabulated now ending at this date. The number of labourers engaged under Act VI. of 1901 was 84,306, while 572,800 were classed as "non-Act" labourers. Of the total labour force in the province 60 per cent., including almost all of the "Act" labourers, were employed in the Assam valley, and the remainder in the Surma valley. The general rate of immigration continued to decline, and the total number of labourers and dependants imported during the year was 22,162, as against 26,684 in 1902–03. The districts which showed the largest falling-off in recruitment were the Central Provinces and Chota Nagpur and the Sonthal Parganas. Recruitment from the other districts was either about the same as in the previous year or showed a slight increase. The diminution in the supply of labour was attributed mainly to good harvests in the recruiting districts and to the competition of the coal industry. The tea industry is gradually recovering from the recent depression, and complaints of the shortness of labour supply were universal. The tendency to abandon Act VI. of 1901 as a basis of labour contracts in favour of agreements enforceable under Act XIII. of 1859 was maintained.

Of the 11,126 adults imported during the year under the Act, 5,031 were recruited by sardars and 6,095 by contractors. It is hoped to give a stimulus to the former system of recruitment by freeing the journey to Assam from

conditions which involve loss of caste, and consequently render it impossible to employ true sardars—men of some position—as a recruiting agency. MIGRATION.

The mortality among coolies during the journey to Assam was happily insignificant. The number of deaths was only 16, of which 10 were due to cholera.

The railway routes *viâ* Dhubri and *viâ* Chandpur and Tinsukia were opened as alternative routes for all emigrants to the Brahmaputra valley. Of the coolies imported into Sylhet and Cachar, the great majority were conveyed by the Assam-Bengal railway; very few by steamer. There were no deaths among coolies in transit by train or steamer to the Surma valley, and none died in the depôts of the Sylhet or Cachar districts.

The number of complaints of fraud and irregularity in recruitment rose from 48 to 64. The increase occurred in the Lakhimpur district, and is ascribed to the recruiting of wandering coolies at Raniganj and Calcutta.

The registered rate of mortality rose from 25·4 to 26·32 per mille. The death rate among coolies from the Central Provinces (37·8) is still very high.

Seven hundred and ninety-two complaints were preferred during the year by coolies against their managers, the increase in the number probably being due to the filing of a greater number of applications for discharge certificates. The number of cases returned of ill-treatment by managers was 127, of which 70 arose out of a single incident in the Cachar district. There was a decrease of serious crime in cases of violence on the part of coolies, and there was a fall in the number of desertions—a natural result of the reduced importation of labour, as it is new coolies who most frequently abscond.

Central Provinces.

The number of inland emigrants recruited in the Central Provinces fell in a marked manner. Of the 3,367 emigrant labourers, 1,894 were males and 1,473 females, and they were accompanied by 1,026 dependants. In the previous year 6,709 emigrants were recruited as labourers, and they took with them no fewer than 8,580 dependants. The decrease is probably almost entirely due to the favourable conditions prevalent among the labouring classes in the recruiting districts.

Burma.

The only statistics available for Burma are of persons arriving and leaving by steamer at the ports of Rangoon and Akyab. At Rangoon 165,555 arrived and 115,770 left; at Akyab 14,670 arrived and 24,029 left.

Madras.

The number of passengers arriving at the several ports of the Madras Presidency during the year was 250,287, of whom 126,700 came from Ceylon and 81,265 from Burma.

Bombay.

There was practically no movement of people into the Bombay Presidency beyond the ordinary influx of temporary labourers for the yearly harvests, which is most marked in Sind. In the Presidency proper there was the usual immigration during the fair season of cartmen and mill-hands from the ghat and sea-coast districts near Bombay into that city, and the Gadag Gold Mines in Dharwar caused a small influx of labourers from the Madras Presidency.

# CHAPTER XV.

## TRADE AND MANUFACTURES.

TRADE

*(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)*

### TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1904, was valued as follows :—

| — | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|
| BY SEA. | £ | £ | £ | £ | £ |
| Private Imports : | | | | | |
| Merchandise - - | 47,141,242 | 50,851,923 | 54,345,986 | 52,525,272 | 56,548,862 |
| Treasure - - | 13,972,342 | 10,975,739 | 13,098,920 | 16,837,152 | 21,295,508 |
| | 61,113,584 | 61,827,662 | 67,444,906 | 69,362,424 | 77,844,370 |
| Private Exports : | | | | | |
| Foreign Merchandise re-exported - - | 2,194,994 | 2,139,021 | 2,173,211 | 1,957,075 | 2,217,006 |
| Indian Merchandise - | 70,455,797 | 69,440,332 | 80,803,375 | 83,919,834 | 99,756,049 |
| Treasure - - | 5,300,028 | 4,982,970 | 5,641,711 | 5,873,341 | 5,432,915 |
| | 77,950,819 | 76,562,323 | 88,618,297 | 91,750,250 | 107,405,970 |
| Government Transactions : | | | | | |
| Imports { Stores - | 3,061,745 | 3,077,803 | 4,841,047 | 4,687,504 | 5,179,320 |
| Imports { Treasure - | 10,115 | 5,408,769 | 635,304 | 82,085 | 4,388,563 |
| Exports { Stores - | 71,423 | 233,024 | 286,941 | 387,490 | 371,718 |
| Exports { Treasure - | 4,231 | 4,501,960 | 2,005,529 | 565,084 | 4,596,339 |
| | 3,147,514 | 13,221,556 | 7,768,821 | 5,681,805 | 14,535,940 |
| Total Trade by Sea - | 142,211,917 | 151,611,541 | 163,832,024 | 166,834,837 | 199,786,280 |
| BY LAND. | | | | | |
| Imports - - | 4,692,714 | 4,732,864 | 5,167,462 | 4,580,733 | 5,211,093 |
| Exports - - - | 3,720,555 | 4,380,463 | 4,405,609 | 3,899,044 | 3,966,335 |
| Total Trade by Land | 8,413,269 | 9,113,327 | 9,573,071 | 8,479,777 | 9,177,428 |
| Excess imports of treasure by sea - | 8,678,198 | 6,899,578 | 6,086,984 | 10,480,812 | 15,654,817 |
| Net excess of exports over imports of merchandise and treasure by sea, private and Government - - | 13,841,029 | 10,983,073 | 17,989,510 | 18,570,811 | 24,961,774 |
| India Council Bills paid in India - - - | 18,703,761 | 12,824,491 | 18,535,842 | 18,724,021* | 23,874,459 |

* As in previous years, the amount actually paid during the year in India is given in pounds at Rs. 15 to the pound. The figures for the three last years include sums of £1,939,093, £263,000, and £2,200,000, respectively drawn against the Gold Reserve Fund. The Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1903–04 yielded £23,859,303, the average rate being 1*s.* 4·049*d.* per rupee.

Foreign seaborne trade.

This summary shows an increase in the total seaborne trade amounting to about £33,000,000, or nearly 20 per cent., as compared with the trade of the previous year 1902–03 ; but putting aside the Government transactions,

TRADE.

the private trade in merchandise and treasure amounted to £185,250,000, which is 15 per cent. above the 1902–3 figure. The total of imports and exports of merchandise on private account shows an increase of £20,120,000 as compared with the preceding year; a result which is due to a considerable increase in exports, accompanied by a smaller rise in imports. Owing to the very large growth in exports, the excess of exports over imports, taking merchandise and treasure together, was nearly £25,000,000; or, if treasure be omitted, the value of exports of merchandise was more than £40,000,000 in excess of that of the imports, an altogether unprecedented figure. It will be seen that the remarkable rise in the price of raw cotton affords some explanation of this result; but most other important export staples show a notable increase. There was no financial stringency, and the Bank rate never rose above 7 per cent., at which level it remained for less than two months in all; while the exchange rate showed practically no fluctuation.

Imports.

The statistics of imports during recent years, given below under the more important headings, show that there was an increase in almost every case. The exceptions are cotton yarns, the trade in which was disturbed by the high prices of raw cotton; mineral oils, a fall due to the rapid development of the Indian oil fields; and railway materials, the decrease in which was more than counter-balanced by the large growth in the imports for use on State lines, which are classed as Government imports, and therefore not included in these figures. Under the other heads, with the exception of the cotton goods trade, the figures furnish striking evidence of industrial development and general prosperity. Records were established for sugar, provisions, hardware, metals, railway material (including imports for State lines), chemical dyes, precious stones, silk fabrics, woollen fabrics, apparel, glassware, and several articles of minor importance. The increase under metals is specially satisfactory. The chief feature of the cotton goods trade was a heavy decline in the imports of grey (unbleached) goods, the direct result of the abnormal conditions affecting the cotton industry, which reduced production and told principally on heavy goods. This decline was compensated by improvements in white and coloured cloth. The only other point which can be noticed in this brief review is the substitution of cane for beet sugar. The imports of the latter, chiefly from Mauritius, rose to 5,300,000 cwts., while imports of beet sugar fell from 1½ million cwts. in 1902–03 to about one-third of that quantity in 1903–04.

| Imports. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Cotton woven goods - | 18,001,000 | 18,231,000 | 20,165,000 | 18,766,000 | 19,246,000 |
| Cotton yarns - - | 1,633,000 | 1,659,000 | 1,765,000 | 1,532,000 | 1,428,000 |
| Silk, raw and manufactured | 1,137,000 | 1,788,000 | 1,530,000 | 1,456,000 | 1,618,000 |
| Woollen goods - - | 1,172,000 | 1,408,000 | 1,313,000 | 937,000 | 1,440,000 |
| Metals - - - | 3,121,000 | 4,288,000 | 4,599,000 | 5,331,000 | 6,197,000 |
| Hardware and cutlery - | 1,060,000 | 1,228,000 | 1,138,000 | 1,333,000 | 1,552,000 |
| Machinery and millwork - | 1,695,000 | 1,505,000 | 2,004,000 | 1,869,000 | 2,235,000 |
| Railway material - - | 1,851,000 | 894,000 | 1,024,000 | 1,074,000 | 935,000 |
| Liquors - - - | 1,065,000 | 1,078,000 | 1,110,000 | 1,180,000 | 1,218,000 |
| Provisions - - - | 1,125,000 | 1,317,000 | 1,323,000 | 1,227,000 | 1,352,000 |
| Sugar - - - - | 2,251,000 | 3,770,000 | 3,901,000 | 3,303,000 | 3,957,000 |
| Mineral oils - - | 2,120,000 | 2,306,000 | 2,558,000 | 2,310,000 | 2,255,000 |
| Chemicals, medicines, dyes | 1,065,000 | 1,230,000 | 1,306,000 | 1,333,000 | 1,503,000 |
| Apparel - - - | 976,000 | 1,026,000 | 1,129,000 | 1,198,000 | 1,331,000 |

TRADE.
Exports of Indian Merchandise.

The progress of the exports was scarcely less uniform than that of the imports. The export of raw cotton was exceptionally large, both in quantity and in value, owing to the high price prevailing. There was also a phenomenal trade in grain, the quantity of rice and wheat exported having in each case only once been surpassed, and the favourable character of the season was also apparent in the increased yield of other agricultural products, such as oilseeds, cocoanuts, jute, opium, tea and indigo. But in the case of oilseeds and indigo, as well as coffee, the value of the exports was restricted by the falling prices. The export of opium was larger than in the previous year, and the inflated prices caused a very considerable increase in its value. The position of the two important textile industries working in cotton and jute, cannot be wholly gauged by the state of the export trade, for each of them has a large Indian market, but while the jute mills disposed of a rapidly-growing production with uninterrupted profit, the cotton mills, whose profits during the earlier part of the year were considerable, suffered towards its close from the high price of the raw material.

| Exports. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Raw cotton | 6,617,000 | 6,752,000 | 9,617,000 | 9,838,000 | 16,251,000 |
| Cotton yarns | 4,601,000 | 2,780,000 | 6,211,000 | 5,693,000 | 5,894,000 |
| Cotton piece goods | 915,000 | 1,022,000 | 1,032,000 | 978,000 | 1,087,000 |
| Raw jute | 5,381,000 | 7,245,000 | 7,865,000 | 7,418,000 | 7,812,000 |
| Jute manufactures | 4,176,000 | 5,243,000 | 5,807,000 | 6,013,000 | 6,313,000 |
| Wool, raw | 904,000 | 602,000 | 529,000 | 777,000 | 918,000 |
| Rice and rice flour | 8,731,000 | 8,813,000 | 9,280,000 | 12,597,000 | 12,723,000 |
| Wheat and wheat flour | 2,863,000 | 259,000 | 2,418,000 | 3,321,000 | 7,746,000 |
| Oilseeds | 6,733,000 | 6,009,000 | 11,186,000 | 9,922,000 | 9,677,000 |
| Tea | 6,061,000 | 6,367,000 | 5,433,000 | 4,908,000 | 5,705,000 |
| Coffee | 990,000 | 819,000 | 833,000 | 881,000 | 912,000 |
| Opium | 5,469,000 | 6,304,000 | 5,682,000 | 5,345,000 | 6,980,000 |
| Indigo | 1,795,000 | 1,424,000 | 1,235,000 | 804,000 | 717,000 |
| Hides and skins | 6,975,000 | 7,655,000 | 5,487,000 | 5,623,000 | 5,957,000 |

Trade by countries.

The proportion of the total trade in merchandise on private account which was carried on directly with European countries was 66·1 per cent., which is 2·9 more than in 1902–03, an equivalent decrease occurring in trade with Africa, owing to exports to Egypt being now classified, not under Egypt as before, but under the countries to which the goods are ultimately consigned. While, however, this source of error has been eliminated, there still remain the distributing centres at Hong Kong, Singapore, Colombo, and Aden, which tend to obscure the real course of trade. The trade with the United Kingdom was 61·2 per cent. of the whole private merchandise trade with Europe, including 78·5 per cent. of the imports from Europe; and it constituted 40·5 per cent. of the total trade in merchandise on private account. The proportion of the trade which is assignable to the British Empire cannot be stated except in a misleading form, since the figures for the ports mentioned above as distributing centres, especially Hong Kong, are very important items, and most of this trade is reshipped to foreign countries. It may, however, be remarked that of the larger British Colonies, Australia took by far the largest amount of Indian produce (value £1,000,000), and that Australian imports into India (value £405,000) are also much larger than those of any other large colony, Mauritius being in the latter case excepted.

TRADE.

The value of India's trade in private merchandise with some of the chief countries, imports and exports combined, has fluctuated as follows in the last six years :—

| | 1898-99. | 1899-1900. | 1900-01. | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| United Kingdom | 53,257,000 | 53,645,000 | 53,806,000 | 55,705,000 | 56,442,000 | 64,204,000 |
| France - - | 5,905,000 | 5,127,000 | 4,750,000 | 6,848,000 | 7,047,000 | 7,650,000 |
| China - - | 9,697,000 | 10,541,000 | 9,597,000 | 12,986,000 | 12,128,000 | 13,360,000 |
| Germany - | 6,655,000 | 6,144,000 | 7,882,000 | 8,810,000 | 8,225,000 | 11,827,000 |
| Straits Settlements. | 5,320,000 | 5,157,000 | 6,273,000 | 5,997,000 | 6,731,000 | 6,581,000 |
| United States - | 4,500,000 | 5,907,000 | 5,655,000 | 6,379,000 | 6,499,000 | 6,890,000 |
| Russia - - | 1,455,000 | 1,683,000 | 2,059,000 | 2,266,000 | 2,064,000 | 2,191,000 |
| Austria-Hungary | 3,017,000 | 2,733,000 | 3,904,000 | 4,216,000 | 3,847,000 | 4,692,000 |
| Belgium - - | 4,620,000 | 3,514,000 | 3,994,000 | 5,161,000 | 5,371,000 | 7,317,000 |
| Italy - - | 2,585,000 | 2,336,000 | 2,630,000 | 2,610,000 | 2,836,000 | 3,959,000 |
| Ceylon - - | 3,341,000 | 3,273,000 | 3,799,000 | 3,663,000 | 3,489,000 | 3,608,000 |
| Japan - - | 3,855,000 | 4,571,000 | 1,958,000 | 5,118,000 | 4,446,000 | 6,494,000 |

A notable feature of this table is the increase of the German figures, but this is to a very large extent due to the rearrangement noted above, by which goods exported to Egypt but having Germany as their ultimate destination are now classed under Germany. It may still be noted that much of the trade attributed to Belgium belongs to Germany.

Provinces and Ports.

The following figures show the proportionate share of each province and of the five chief ports in the private trade with foreign countries in merchandise only :—

| | Imports (percentages). | | | Exports (percentages). | | |
|---|---|---|---|---|---|---|
| | 1901-02. | 1902-03. | 1903-04. | 1901-02. | 1902-03. | 1903-04. |
| PROVINCES : | | | | | | |
| Bengal - - - | 40·3 | 41·7 | 39·7 | 44·5 | 41·8 | 39·2 |
| Bombay and Sind - - | 42·6 | 41·6 | 41·7 | 37·5 | 36·0 | 40·5 |
| Madras - - - | 9·5 | 9·1 | 8·9 | 9·5 | 10·2 | 9·9 |
| Burma - - - | 7·6 | 7·6 | 9·7 | 8·5 | 12·0 | 10·4 |
| | 100 | 100 | 100 | 100 | 100 | 100 |
| CHIEF PORTS : | | | | | | |
| Calcutta - - - | 40·1 | 41·5 | 39·5 | 43·1 | 40·4 | 37·4 |
| Bombay - - - | 34·7 | 35·0 | 35·3 | 30·4 | 29·8 | 31·9 |
| Karachi - - - | 5·2 | 6·6 | 6·5 | 7·1 | 6·2 | 8·7 |
| Madras - - - | 7·4 | 7·7 | 7·2 | 3·6 | 3·7 | 3·3 |
| Rangoon - - - | 7·5 | 7·4 | 9·5 | 6·5 | 9·0 | 8·3 |

In none of the provinces or ports mentioned in this table was there an actual decrease, either in imports or exports, as compared with 1903–04, but the table shows which of them made the greatest advance during the year. The foreign export trade of the port of Bombay has in recent years made a considerable recovery, after great depression during the famine and the disorganisation of the mill industry. In the year 1898–99 no less than

TRADE. 34·4 per cent. of the total exports went from that port. Calcutta was still, however, considerably ahead of the port of Bombay, the former possessing £60,496,500 in 1903–04 and the latter £52,454,800 as the total value of their export and import trade in merchandise.

Treasure. Rather more than half the trade in treasure passed through the port of Bombay. The net imports of treasure were £15,654,800, or £5,174,000 more than those of the previous year. The balance of trade, or excess of seaborne foreign exports over imports of merchandise and treasure, both on Government and private account, was, as above stated, £24,961,774, or more than 34 per cent. above the figure of 1902–03.

Land trade. In the year 1902–03 the land frontier trade had received a severe check, owing to the presence of famine in parts of Afghanistan and Persia, and the plague in the Punjab. In the year under report, however, there was a satisfactory recovery along most of the trade routes. Trade in merchandise with Dir, Swat, and Bajaur continued to decline owing to bad seasons, but there are evidences of steady growth under most of the other headings, although in some cases the exceptional figures of the trade of 1901–02 were not atttained. The gross totals of imports and exports together, including treasure, for the last five years are given in the margin. Trade along the Nushki-Seistan route remained at a low figure, owing partly to the drought in Persia and the consequent difficulties of transport. The most important item is the trade with Nepal, the value of which is given as £2,635,000 in 1903–04. This does not show any pronounced increase, but the character of the trade, including a considerable share of oil-seeds, which were depreciated in price during the year, accounts to some extent for the slow growth in the value of the trade. As has been observed in previous numbers of this Statement, the figures given under this heading include trade with tracts like Kashmir and the Shan States, much of which cannot properly be called trans-frontier trade. Taking the frontier trade as a whole, the chief items were, among imports, food grains (value £998,500) and timber (value £915,700), and, among exports, cotton goods (value £1,424,000).

| | £ |
|---|---|
| 1899-1900 - | 8,413,000 |
| 1900-1901 - | 9,113,000 |
| 1901-1902 - | 9,573,000 |
| 1902-1903 - | 8,480,000 |
| 1903-1904 - | 9,177,000 |

Coasting trade. The combined import and export trade in merchandise and treasure carried on by coasting vessels is said to have represented a value of £46,730,000 during 1903–04, which is rather more than the trade of 1902–03. It is to be observed that in this calculation each transaction is counted twice, and the value of the merchandise and treasure concerned stands at about half the above figure, or rather more than 23 millions sterling. The only remarkable improvements were in the exports of mineral oils from Burma and in the transport of raw cotton and Bengal coal, chiefly to Bombay. The conditions of the trade generally were satisfactory. A large increase of the coasting trade indicates, as a rule, more or less serious failure of the crops, giving rise to a great local demand for food grains which would otherwise be exported to foreign countries. In 1903–04 the amount of grain carried by the coasting trade was small.

## MANUFACTURES.

MANUFACTURES.

General. An Exhibition of Indian Art was opened at Delhi on the 30th December 1902 in connection with the Coronation Durbar. As its name implies, it was not intended to have an economic or industrial character; but the art manufactures of India have a very important place among her industries, and the exhibition must be mentioned here as being intended for their promotion and encouragement. An official catalogue, the value of which is attested by the name of its author, Sir George Watt, C.I.E., has since been published under the name "Indian Art at Delhi," and contains much information of permanent interest regarding Indian arts and industries.

Cotton mills. There were at the end of the year 1903–04 in British India and Native States 204 cotton mills containing 46,421 looms and 5,213,344 spindles, and giving employment on an average to 186,271 persons every day. Of these, 113 were exclusively spinning mills, five were exclusively weaving mills, and in the rest both spinning and weaving were carried on. The capital invested, so far as this information is given, was £10,564,000 (paid-up capital and

MANUFACTURES.

debenture loans); but there is no statement of the capital of 12 mills worked by private proprietors. The total of money actually invested might be estimated at about 11 millions sterling. The industry dates from 1851, when the first mill was started. It is located, as regards 69 per cent. of the mills, in the Bombay Presidency, while there are 19 mills in the territory of Native States and in French possessions in India.

The out-turn of yarn in recent years has been as follows in British India, excluding the mills in Native States or foreign territory :—

| — | Counts above 20s. | Lower Counts. | Total. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| 1899–1900 - - | 62,093,277 | 439,591,918 | 501,294,539 |
| 1900–01 - - - | 70,005,109 | 272,772,438 | 342,777,547 |
| 1901–02 - - | 84,396,316 | 475,608,532 | 560,004,848 |
| 1902–03 - - - | 95,779,659 | 463,032,381 | 558,812,040 |
| 1903–04 - - | 100,185,763 | 456,005,029 | 556,190,792 |

The great decline in the low-count yarns in 1900–01 was due partly to the famine in India, which impaired the purchasing power of the people at the same time that it raised the price of raw material, and partly to the collapse of the Chinese market, which in turn was caused by over-supply from India and Japan, and by the political and military events in China. In 1901–02, with the passing away of these causes of depression, and a reduction in the prices of raw cotton following on larger crops, the mills resumed operations with great activity, but the high price of the yarn in the year 1903–04 made profitable business difficult, so that several mills either closed or worked short time. The mills of the Bombay Presidency produced 75 per cent of the yarn, Bengal 8 per cent., Madras 5 per cent., the United Provinces about 5 per cent., and the Central Provinces 4 per cent. The production of yarns of counts above 20s. continued to increase, and the Bombay mills spun an appreciable quantity (21 per cent. of their output in 1903–04) of these higher counts. The out-turn of finer yarns, 31s. to 40s., in Indian mills increased from 11 millions of pounds in 1900–01 to about 12½ millions in each of the two later years, and to 16¼ millions in 1903–04. The Bombay mills also spun an appreciable quantity of yarns of No. 40 and upwards, using Egyptian or other imported cotton.

The weaving mills were less affected than the spinning mills by the high price of cotton, since there was a considerable advance in the price of cloth, and both the home and the foreign demand was good. The production of woven goods by cotton mills in British India rose from 117¼ to 131⅞ millions of pounds, of which 86 per cent. came from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 4 and 6 per cent. respectively of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any very large proportion of the weaving consist of finer goods, and there these fabrics constituted 64 per cent. of the production. It is to be observed, however, that there is a very decided tendency to increase the output of the finer classes of goods, which stood at 26⅞ millions of pounds in 1903–04, or more than 14 per cent. in advance of the previous year's figures, this class of goods having increased in a greater proportion than grey goods. The out-turn of mills in the Native States is given as follows :—1902–03, yarn 16,882,200 lbs., woven goods 5,291,300 lbs.; 1903–04, yarn 22,568,300 lbs., woven goods 6,167,900 lbs.; a noteworthy increase, in view of the fact that the figures for the earlier year include the production in Berar mills, which is now included in the British India figures.

Jute mills.

The number of jute mills in 1903–04 was 38, containing 18,406 looms and 376,700 spindles, and employing a daily average of about 124,000 persons. All the mills, with the exception of one at Cawnpore and one in the Madras Presidency, are in the province of Bengal, and most of them are in the

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vicinity of Calcutta. The capital employed by these mills, excluding two which had not reported their capital, was about £4,800,000, of which rather more than one half was sterling capital. The producing capacity of the mills and the capital employed have nearly doubled in the last decade. The sterling capital has increased by 89 per cent. and the rupee capital by 63 per cent. The reports do not include statements of the out-turn of the mills, but the statistics given above in the Trade section of this chapter show a steadily increasing export trade in jute manufactures.

Woollen mills.

There were six woollen mills at work at the end of 1903, containing 668 looms, and 25,216 spindles, employing 3,041 persons, and producing goods valued at £195,000 in the year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police, and an admixture of Australian wool is used. There is not much demand in India for woollen goods except for descriptions which could hardly be made profitably in India in competition with European mills, and any large expansion of the industry can hardly be expected. There are in various places factories for the weaving of carpets and rugs, but though these industries are in the aggregate extensive they are individually small, and the weaving is done in hand-looms.

Paper mills.

There were nine paper mills at work in India, employing a daily average of 4,523 hands, and producing in 1903 about 43⅔ million lbs. of paper, valued at £384,300. Most of the foolscap, blotting paper, notepaper, and envelopes used in Government offices is now obtained from the Indian mills; but there has been a depression in the paper-making industry in Bengal in recent years, owing to the importation in large quantities of cheap paper made from wood pulp, which is of more attractive appearance, if less durable, than paper made from grass, gunnies, and rags in the Bengal mills. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available.

Breweries.

In 1903 there were 27 breweries at work, which produced during the year six million gallons of beer and porter. The Commissariat Department bought nearly half of this malt liquor for the use of European soldiers. The largest brewery is at Murree in the Punjab Himalayas, and the output of that concern was over a million gallons. The quantity of beer, porter, and cider imported into India was 4,068,000 gallons in 1903–04, or about two-thirds of the quantity produced in the country.

Other industries.

There are a large number of cotton spinning factories or presses, indigo factories of all sizes and kinds, iron and brass foundries, &c. scattered throughout the country, which are enumerated more or less roughly in the annual returns. But nothing illustrates better the present state of industrial development in India than the fact that, after the cotton and jute industries, and apart from the indigenous industries, there was only one of the manufacturing industries, strictly so called, namely, the iron and brass foundries, in which as many as 20,000 persons are returned as having been employed during the year. In the preparation of agricultural staples for the market, employment is found for larger numbers; indigo factories, for instance, employed over 81,000 workers; cotton ginning, cleaning, and pressing mills over 75,000; jute presses 21,000. But of other manufacturing industries the most important, after cotton and jute mills, are the iron and brass foundries (22,300 workers), silk filatures (9,158), tanneries (7,900), and others of still less importance. It must not, however, be forgotten that the returns upon which these figures are based are in most cases of very doubtful value. Omitting these untrustworthy returns of the minor industries, the following table gives some particulars

as to employment in the industries separately noticed above, and in coal mines :—

| | Average daily Number of Employés. | | | |
|---|---|---|---|---|
| | Men. | Women. | Children and young Persons. | Total. |
| Cotton mills (figures for 1903-04) - | 118,640 | 36,737 | 30,894 | 186,271 |
| Jute mills ( „ „ ) - | 81,706 | 21,141 | 21,022 | 123,869 |
| Woollen mills ( „ „ ) - | — | — | — | 3,041 |
| Paper mills ( „ „ ) - | — | — | — | 4,523 |
| Coal mines ( „ 1903) - - | 60,067 | 25,090 | 3,373 | 88,530 |

The average number of men, women, and children shown in a table below to have been employed in 1903, in the factories coming under the Factories Act is 571,639. If to these be added the figures given in the report of the Chief Inspector of Mines, relating to all mines coming under the Mines Act, namely, 102,195, a total of 673,834 results. The total number of workers in large industries given in the report on the census of 1901 was 688,352.

The progress of the agricultural industries, such as the tea industry and the indigo industry, and also that of the coal industry, has been noticed in the chapter on agriculture and mineral resources, as is the usual practice in these annual Statements.

## FACTORIES ACT.



The law respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter into the previous law were, briefly :—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act ;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years ;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours, and their employment at night-time was forbidden ;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day, with intervals amounting to 1½ hours ;

Hours of rest during work were prescribed for all labourers.

FACTORY ACT.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows :—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1903.

| PROVINCE. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents Reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted from Sunday Stoppage. | | Fatal. | Serious. | Minor. | Total. |
| Bengal - - - | 258 | 168,360 | 25,813 | 18,841 | 213,014 | 160 | 13 | 85 | 2 | 31 | 259 | 362 | 652 |
| United Provinces - | 122 | 33,476 | 3,649 | 1,843 | 38,968 | 93 | 25 | 4 | 4 | 11 | 65 | 46 | 122 |
| Punjab - - - | 188 | 19,095 | 2,996 | 1,037 | 23,128 | 113 | 62 | 9 | 2 | 9 | 23 | 124 | 156 |
| North West Frontier Province. | 2 | 40 | 24 | — | 64 | 2 | — | — | — | — | — | — | — |
| Burma - - | 188 | 31,327 | 861 | 157 | 32,345 | 184 | 2 | 4 | 1 | 9 | 76 | 78 | 163 |
| Central Provinces and Berar. | 391 | 25,905 | 14,957 | 1,919 | 42,781 | 190 | 200 | 1 | 19 | 10 | 44 | 59 | 113 |
| Madras - - - | 81 | 30,353 | 2,842 | 2,007 | 35,202 | 70 | 7 | — | — | 3 | 19 | 226 | 248 |
| Bombay - - | 416 | 136,995 | 38,752 | 7,163 | 182,910 | 287 | 127 | 2 | 9 | 17 | 77 | 1,429 | 1,523 |
| Assam - - - | 13 | 1,597 | 486 | 138 | 2,221 | 13 | — | — | — | 1 | 5 | — | 6 |
| Ajmere - - | 2 | 669 | 320 | 17 | 1,006 | 2 | — | — | — | — | — | 6 | 6 |
| Total, 1903 - | 1,661 | 447,817 | 90,700 | 33,122 | 571,639 | 1,114 | 436 | 109 | 37 | 91 | 568 | 2,330 | 2,989 |
| Total, 1902 - | 1,511 | 424,375 | 85,882 | 31,377 | 541,634 | 1,022 | 367 | 117 | 24 | 95 | 495 | 2,517 | 3,107 |

The increase in the number of factories occurred chiefly in cotton ginning mills in Berar and elsewhere. The increase in the number of operatives was most noticeable in Bengal, the Punjab, and the Central Provinces. There were a few factories which were not inspected during the year, but these were for the most part those which were established and started late in the year. The cases in which the provisions of the Act relating to the working hours and employment of women and children were contravened were few, and have been adequately dealt with. A satisfactory account is also given of the health and general condition of the operatives, although in Cawnpore they continued to suffer from the plague. The inspecting officers gave careful supervision to the sanitation of factories, and the septic tank system was being gradually introduced. There was no noteworthy change in respect of the number of accidents. In the majority of cases the fatal accidents were due to the carelessness of operatives. Detailed statistics as to the wages of mill operatives are now collected, with a view to publication in the yearly volume "Prices and Wages," published by the Government of India. The wages compare favourably with those of agricultural labourers in all provinces.

# CHAPTER XVI.

## FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATES.

Baluchistan and the Persian Frontier.

The general health of the Baluchistan Agency during the year under review was bad, owing to the prevalence of typhus fever and cholera. The season was on the whole favourable to agriculture; but in Zhob severe cold caused heavy losses in the flocks.

The year was marked by the introduction of a new Police scheme, the chief features of which are the substitution of local district levies for the regular police in the rural districts and outlying *thanas*, the increase in the number of Deputy Inspectors, and the bettering of the pay and prospects of the police force generally. Two companies were added to the Zhob Levy Corps at an annual estimated cost of £3,000, which will fall on Provincial revenues.

The working of the six Niabats of the Kalat State under the control of the Political Adviser to the Khan, resulted during the year under report in an increase of His Highness's revenue amounting to £12,500. The Niabat of Nasirabad and the lower portion of the Manjuti lands were leased by His Highness to the British Government at an annual quit rent of £7,800, with effect from the 1st April 1903. Steps were taken in conjunction with His Highness to ensure the better control of the Jhallawan tribes. Various improvements were made at Pasni, which is the most suitable outlet along the Mekran coast for the trade of the country. His Excellency the Viceroy visited the port in December 1903, and held a Durbar there. An experiment in Sericulture, which there is every reason to hope will be successful, was made at Mastung. The revenues of the Las Bela State were injuriously affected by damage done to the crops by locusts, and by the interruption of traffic between Las Bela and Karachi owing to the prevalence of plague at the latter place.

Relations with the tribes on the Persian border continued to be satisfactory throughout the year.

Railway construction between Galungur and Nushki was commenced during the year, and the work was being pushed on rapidly. The Quetta-Nushki telegraph line was extended as far as Robat (Koh-i-Malik Siah) and offices were opened at Nushki, Padag, Dalbandin, Merui, Mashki Chah, Saindak, and Robat along the trade route. The figures in regard to trade on the Nushki route show a small increase for the year, and the outlook is reported to be not altogether unfavourable in spite of some adverse factors. There was some raiding and cattle lifting on the Afghan border; but good relations with the tribes were generally maintained.

The year was not marked by any events of grave political importance.

North-West Frontier Province.

The conduct of the trans-border tribes on the North-West Frontier was generally satisfactory, and no necessity arose for the employment of armed force against any tribe or section. In the settled districts the condition of the people generally was better than that of the preceding year, and the harvests being plentiful, easy prices ruled. Across the administrative border the crops were poor; and, for the first time for many years, there was a large import of grain into these regions. The decrease in their crop out-turn, however, scarcely affected the trans-border tribesmen, who were enabled to take employment on the various works in progress throughout the Province and elsewhere, and who have always open to them service both in the Regular Army and in the Frontier Militia and Border Military Police Corps.

FRONTIERS AND FRONTIER STATES.

The policy of withdrawing military garrisons from trans-frontier agencies was further carried into effect. At the close of the year under review, Kajuri Kach and Nili Kach in Wana, and Miranshah in Tochi, were the only posts held by military garrisons. The four Militia Corps and the Samana Rifles were rearmed during the year with Martini-Henry rifles Mark II.

The Nawab of Dir was afflicted with a paralytic stroke towards the close of the year. He recovered for a time, in some measure; but died on the 7th December 1904, and his son, Badshah Khan, was recognised by the Government of India as his successor. The exactions of the late Nawab's revenue collectors, internal dissensions, and friction with neighbouring chiefs have for some time past threatened the continuancy of the Nawab's rule, but up to the close of the period under review the danger had been averted.

In Chitral the Mehtar continued to show himself an able and loyal ruler. A Corps of Scouts has been successfully raised in the State, owing largely to the co-operation of the Mehtar, who has been appointed Honorary Commandant. With the assistance of the Government of India, vaccination operations were carried out with good results.

In the Khyber the Afridis continued to intrigue with Afghan authorities. The Afridis and Orakzais of Tirah were busy all the summer in the prosecution of intertribal religious war. A telegraph line up to Landi Kotal was successfully completed, and considerable progress was made in the widening of the Mullagori road. Preparations were made for the despatch of a Commission from Peshawur to demarcate the boundary between India and Afghanistan in the Khyber and Mohmand country. The arrival of the hot weather, however, before the completion of arrangements with Afghanistan, compelled the postponement of the Commission.

Interference by the Afghan Sartip of Dakka at Smatzai and Shinpokh on the Shilmani border in April 1903 threatened at one time to have serious consequences. These villages were promptly occupied by a party of the Khyber Rifles to check the interference of the Sartip. When matters settled down the Khyber Rifles were replaced by levies.

In the Kurram the Mastu Khel, a section of the Gar Massuzai Orakzai tribe, were the only disturbing element. This section considers itself aggrieved, both in the matter of the settlement made with it after the expedition of 1897 and in the distribution of the Massuzai allowances. It has so far maintained a recalcitrant attitude and signified its resentment by raids and kidnappings in the Kurram. In the Peshawur district affairs were quiet, and the cantonment continued to enjoy a practically complete immunity from outrages and violent crime; but the Kohat district suffered from the depredations of a gang of outlaws who found a refuge in Khost, in Afghan territory. In Waziristan the satisfactory state of affairs, due to the punitive measures noted in last year's report, was maintained, and the re-settlement of the Daur Valley in the Tochi Agency was successfully effected. A re-distribution and re-arrangement of the allowances granted to the Mahsuds in 1902 allayed the friction which at one time seemed likely to arise between the old headmen and the ordinary members of the tribe. The British Afghan Joint Commission, referred to in last year's Statement, was occupied during the greater portion of the year in deciding cases arising from the raids and counter-raids committed upon each other by British and Afghan subjects. The area of the jurisdiction of the Commission extended from the Kurram to the Wana Agency, and though its findings resulted practically in a balancing of accounts, there can be no doubt that this proof of Afghan acquiescence in the boundaries demarcated in 1894 and of the friendly relations existing between the two Powers, made a great impression on the tribesmen.

Kashmir. No events of political importance occurred in Kashmir in 1903–04.

Nipal. Friendly relations were maintained with the Nipal State during the year under report. The Durbar continued to give the same facilities as in the past for the recruitment of Gurkhas for the Indian Army.

Information as to the trade of Nipal is given in Chapter XV., p. 174.

FRONTIERS AND FRONTIER STATES.

Sikkim and Bhutan.

In Sikkim the season was favourable and the public health was good. During the year under review the Tibet Mission passed through Sikkim to Tibet; and, in consequence of the presence of troops and the large amount of transport required for them, the ordinary business of the State was greatly disorganised. These conditions resulted in short collections of revenue under certain main heads, and in a falling-off in trade returns. The finances were, however, generally satisfactory.

Friendly relations were maintained with Bhutan, of which State the Tongsa Penlop continued to act as Deb Raja. No matters of special interest were reported during the year.

Manipur State.

In the Manipur State the season was favourable to agriculturists, but the general health of the people was indifferent owing to the prevalence of malarial fever. Vaccination operations were successfully carried on. The behaviour of the hill tribes was generally satisfactory throughout the year under review. The revenue realised amounted to £26,000 as compared with £23,000 in the previous year; there was a closing balance of about £16,000. £9,800 was spent on Public Works during the year, as against an outlay of £5,400 in 1902–03.

Assam Frontier.

The Assam frontier tribes were generally well behaved; but, raids and robberies committed by sections of the Daflas, Abors and Nagas having caused some trouble, measures were taken to punish the offenders and restore order. The following political changes were effected in the Naga Hills: In the north, the Sakari country north of the Tirap river was annexed; in the south, the Sema and Angami territory was incorporated in the Naga Hills district. The people in the Angami district were eager for British protection, and the annexation was carried into effect in March 1904 without any opposition.

Khasi and Jaintia Hills.

The Siem of Mawsynram, his brother, and some of his adherents were tried and convicted on two charges of murder. The Siem and some of his adherents were sentenced to death, and others to transportation for life. On appeal all the sentences were commuted by the Chief Commissioner to transportation for life.

An election for the Siemship of the Khyrim State was held in January 1904. The majority of votes was obtained by U Dakhor Singh, who was accordingly proclaimed Siem under the Order of the Chief Commissioner on the 28th March last.

In Cherra, although quiet had not been fully restored, matters were reported to be settling down, and hope was entertained that by degrees the new Siem, Roba Singh, would be able to establish his influence throughout the State.

The Chin Hills.

In the Chin Hills the year under review was one of peace and progress. The tribes were generally well-behaved. In the unadministered territories beyond the British borders raids and quarrels among the tribes continued, but as a rule they respected the frontier. In the Pakokku Chin Hills the old-standing quarrel with the people of Khrum across the frontier was brought to a satisfactory conclusion. Good progress was made in disarming the tribesmen. Considerable expenditure was incurred during the year in constructing mule tracks and roads from Midat-sakan to Khrum and Kanpetlet in the Pakokku Chin Hills, and from Falam to Tyao river in the Chin Hills proper.

The North-Eastern Frontier: Kachin Hills.

There were no serious disturbances on the North-Eastern frontier during the year, but the number of minor border cases increased. Relations with the Chinese frontier officers continued to be satisfactory. Officials of both Governments met near Namhkan in January 1904, and were able to settle amicably most of the pending claims against Chinese subjects. A noteworthy event of the year was the extension, with the consent of the Chinese authorities, of the mule road from Bhamo as far as the Manwaing plain beyond the Chinese frontier. Progress was also made in the work of improving internal communications in the Bhamo district and in the hill tracks of Myitkyina. The settlement of forest reserves in the Bhamo district, which had been postponed in the previous year, was successfully carried out, and was made the occasion of an attempt to encourage the Kachins to abandon shifting cultivation

FRONTIERS AND FRONTIER STATES.

and cultivate irrigable land. Four reserves were settled in the Myitkyina district during the year. In this latter district there was a large and satisfactory increase in the revenue from indiarubber. There were some indications of improvement in trans-frontier trade, and measures were taken to facilitate its development. There was a decrease in the number of violent crimes. Measures taken for the registration of firearms were much more effectual than in previous years.

The Shan States.

In the Southern Shan States the year was one of good crops and of improved trade. The public health was good, and the civil hospital at Taunggyi continued to advance in popularity.

The new scale of tribute was introduced for the first time during the year under review. As it proved in some cases more onerous than was anticipated, the question of its modification was under consideration. The Local Government, with a view to encouraging road-making and opening up communications, intimated their readiness to grant remissions for expenditure on public works. Many States made satisfactory progress in improving communications.

A Durbar was held at Taunggyi on the 9th May 1903, which was largely attended by chiefs and people. The functions, which lasted for a week, included an agricultural show and an arts and crafts exhibition. These were held in the Southern Shan States for the first time, and proved very successful. A conference of all the chiefs to discuss matters relating to the administration of their States was held, and they were encouraged to speak freely, and in many cases did so. They also unanimously resolved to memorialise Government on the question of a railway to the Southern Shan States. This was subsequently done, and the question is under consideration.

The school at Taunggyi for the sons of Shan chiefs, referred to in last year's Statement, made very satisfactory progress during the year under review. There was no important variation in the amount of crime, which is said to be fairly well reported. Friendly relations were maintained with both the French and Siamese officials across the border, and the peace of the frontier was undisturbed. Within the border the conduct of affairs in two States, Yawnghwe and Wanyin, called for interference on the part of Government, but with these exceptions there were no very serious instances of maladministration, though many of the chiefs still needed constant guidance and supervision.

The Northern Shan States enjoyed a very prosperous year. There was a decrease of violent crime, and the statistics of detection were satisfactory. In the Hsipaw State the revenue administration was good, and the income of State was considerably increased. The treasury of this important State has been in charge of an officer appointed by the Local Government since July 1902. As regards the other States the Local Government report that "the fiscal methods of the chiefs are still very primitive, though they are "gradually improving under the advice and guidance of the Superintendent "and his officers." The most noticeable feature in the trade of the year was a steady movement of traffic from the roads to the railway.

Though there was much trouble on the Chinese side of the border, order prevailed on the frontier, and there was no important disturbance within the States themselves. The steps taken to effect the capture of a notorious Chinese dacoit in North Hsenwi unfortunately led to the death in January 1904 of Captain Wyllie, the Assistant Commandant of the Military Police Battalion. Captain Wyllie was a capable and energetic officer, and his loss is much regretted. The annual settlement of border cases with the officials on the Chinese side of the border produced very satisfactory results.

## NATIVE STATES.



Thagi and Dakaiti.

The conditions under which the work of the three Agencies of the Thagi and Dakaiti Department in Rajputana, Central India, and Hyderabad was carried out remained unchanged during 1903–04. A scheme for the reorganisation of the Department was, however, under consideration. The return showing the number of cases of dakaiti in the three divisions for 1903–04 has not yet been furnished, but it may be noted that there was a general decrease of crime, including dakaiti, in both Rajputana and Central India during this period.

Hyderabad.

Details as to the administration of the Hyderabad State are not available, as the Nizam's Government does not publish an Annual Report.

In connection with the reorganisation of the Thagi and Dakaiti Department above referred to, negotiations were entered into for the transfer of the Hyderabad establishment of the Department to the control of the Nizam's Government subject to certain specified conditions.

Mysore.

The seasons throughout the Mysore State were generally favourable and good. The rainfall was above the average. The supply of drinking water and fodder for cattle was sufficient, and retail prices of food grains were lower than in the preceding year. The State continued to be afflicted by plague. The total number of cases and deaths was 26,893 and 20,014, respectively, as against 36,088 and 26,573, respectively, in 1902–03. The total expenditure incurred during the year under review in connection with plague preventive measures amounted, approximately, to £7,000, as against £7,356 in the preceding year.

There was a decrease in the number of criminal offences, and no cases of dacoity were reported during the year.

A meeting of the Representative Assembly was held on the 5th October and the four following days. The attendance was small, owing mainly to the plague, which was very severe in the autumn of 1903.

The following regulations were passed during the year :—

(1) A Regulation to provide for the recovery of loans made to Agricultural Banks by Government;

(2) The City of Mysore Improvement Regulation, 1903;

(3) A Regulation to further amend the Mysore Chief Court Regulation;

(4) The Mysore Whipping Regulation, 1903;

(5) A Regulation to amend the Indian Penal Code, 1860, as it is in force in Mysore;

(6) The Code of Criminal Procedure, 1904;

(7) The Societies Registration Regulation, 1904;

(8) A Regulation to amend the City of Mysore Improvement Regulation, 1903.

The sanctioned expenditure for the year from Public Funds on account of Education amounted to £74,552, of which £52,800 was derived from State Funds, £18,224 from the Village School Fund, and £3,528 from the Local Funds General. There were 2,219 public institutions with 87,833 pupils—71,820 boys and 16,013 girls—under instruction, besides some 1,646 private institutions with about 19,000 pupils. Much attention was paid to technical and industrial education. Besides the usual Medical and Engineering Scholarships, 20 scholarships of Rs. 20 a month each were established to enable Mysore young men to receive technical and industrial education in the Victoria Jubilee Institute of Bombay, and in the Schools of Art and Veterinary Colleges at Madras and Bombay. Six village school teachers were trained in sericulture in Mr. Tata's Experimental Silk Farm at Bangalore. A school for the revival of decaying local industries was established, and two weaving schools and an industrial school to teach carpentry and blacksmith's work were also opened.

NATIVE STATES.

The following are the principal figures in connection with the Revenue and Expenditure of the State :—

| REVENUE. | |
|---|---|
| Land Revenue - - | £654,746 |
| Mining Royalty and leases | 122,253 |
| Forests - - - - | 105,340 |
| Excise - - - | 246,740 |
| Railways - - - | 41,340 |
| Cauvery Falls Scheme - | 98,080 |
| Total (including other charges) - - | £1,421,106 |

| EXPENDITURE. | |
|---|---|
| Land Revenue - - | £115,460 |
| General Administration - | 50,000 |
| Palace - - - | 106,666 |
| Law and Justice - - | 60,760 |
| Police - - - | 66,366 |
| Education - - - | 52,800 |
| Allowances, &c. (including Tribute) - - | 255,000 |
| Military - - - | 87,666 |
| Public Works - - | 251,400 |
| Plague charges - - | 7,356 |
| Railways - - | 53,333 |
| Cauvery Falls Scheme - | 78,420 |
| Total (including other charges) - - | £1,446,140 |

Compared with the preceding year the receipts showed an increase of £43,000, mainly under the heads Mining Royalty, Railways, and the Cauvery Falls Electric Scheme. Under expenditure there was an increase of £102,000, chiefly on account of Palace, Education, Public Works, and Interest on Savings Bank accounts. The total approximate expenditure from all sources on Public Works amounted to £376,700, as against £258,000 in the previous year. In November 1903 sanction was accorded for the expenditure of £87,359 on a 2nd Installation of the Cauvery Falls Scheme. The approximate outlay on this work, inclusive of English expenditure during the year, was £42,012. The revenue derived during this, the second, year's working from the 1st Installation, was about £81,000, and the cost of maintenance and working amounted to £14,700.

During the year under report, no lines of railway were undertaken by the State. The length of open lines remained the same as in preceding year, viz., 401 miles metre gauge, 10 miles standard gauge.

Some account of the gold production of the Mysore gold mines is given above, on page 117.

Baroda.

In Baroda the most important feature of the year was the complete disappearance of the conditions of famine and scarcity which prevailed during the three previous years throughout the territory of His Highness the Gaekwar. The year would have been one of great agricultural prosperity but for the ravages of locusts in some portions of the State. The favourable season made its influence felt in every direction, and all classes benefited, but it is estimated that only an unbroken succession of good years can entirely obliterate all trace of the late droughts, and enable the cultivators to pay the arrears of assessment.

The plague was prevalent in Baroda city and some of the divisions of the State to a greater extent than in the preceding year. The following are the figures :—

| Year. | Cases. | Deaths. |
|---|---|---|
| 1903–04 - | 16,317 - | 12,090 |
| 1902–03 - | 12,746 - | 9,121 |

Measures were taken by the Durbar to prevent the spread of the disease. There was no important change in the policy adopted in the previous year. Apart from the plague, public health throughout Baroda territory was on the whole satisfactory.

The following lines of railway were opened for traffic during the year under review :—Baroda-Godhra Chord Railway, Railway from Padra to Mobha, and Baroda State Railway from Kalol to Kadi. Other railway schemes were under consideration.

NATIVE STATES. Rajputana.

Throughout Rajputana the rainfall of the year, though late, and in some places irregular, was generally sufficient, and there was no scarcity in any part of the Province. In Marwar and Jaisalmer much damage was done by locusts, and to a less extent in parts of Bikanir, Jaipur, and Alwar. Prices were low, and the movement of food-grains by rail showed signs of returning prosperity. The return of normal conditions had the usual effect of causing a large decrease in crime. Cases of dacoity were less frequent in the Province than in the preceding year.

Several parts of the Province were afflicted by plague during the latter part of the year. The total number of cases and deaths were, respectively, 11,012 and 9,016, as compared with 1,385 and 1,307 in the preceding year. In other respects the public health was satisfactory.

In the Jaipur State the returns show 661 schools and 21,078 scholars as compared with 482 schools and 15,388 scholars in 1902–03. A re-organisation of the Mayo College was effected during the year under report. Amongst other changes the teaching staff, both European and Native, was considerably strengthened, and the curriculum was entirely revised. The total number of pupils borne on the rolls of the College at the end of the year was 88, as against 49 in the preceding year.

The total outlay on Public Works in the Rajputana States amounted to £229,800, as compared with £240,100 in the preceding year. Marked progress was made during the year in investigations connected with protective irrigation works.

His Excellency the Viceroy visited the Alwar State in December 1903, and invested His Highness the Maharaja with ruling powers. The States of Banswara and Tonk were brought under the close supervision of the Political Authorities with a view to the introduction of administrative reforms. A loan of £15,200 was granted by the Government of India to the Jaisalmer Durbar to extricate the State from its financial embarrassment. The outstanding debts of the Dholpur State were paid off in full during the year under review.

Central India Agency.

Throughout the Central India Agency the rainfall was considerably above the average except in Baghelkhand, where, though somewhat deficient in quantity, it was timely and well distributed. The *kharif* crop promised well, and was on the whole good, though damaged to some extent by heavy and continuous rain in July and August 1903. In the Bhopawar Agency some injury was caused by locusts. The heavy rain raised the general water level, which had fallen during the previous years of drought, and led to larger *rabi* sowings than usual. The spring crops, however, suffered in places from untimely rain and hail during February and March 1904; and in the Malwa Agency from the ravages of small insects, from which the opium crop suffered most. In spite of these drawbacks, the year, from an agricultural point of view, was very prosperous. Grain and water were plentiful; the entire revenue was, speaking generally, realised in all States; and the prices of food grains fell considerably.

Apart from the mortality caused by the plague and an outbreak of cholera at Rewa, the public health of the Agency was generally good. The total number of deaths from plague reported during the year was 44,127. In April 1904 the disease had disappeared from the Capital towns and Cantonments, but it lingered in the outlying districts till June. As reported in last year's Statement, plague appeared in October 1902. It practically died out in the hot weather of 1903, but re-appeared in the rainy season in a most virulent form in the Indore City and Residency, where it decimated the population, and in the Cantonment of Mhow, where over one-fifth of the civil population perished. Refugees from Indore and Mhow carried the disease to Sehore, Bhopal, and Nimach, and by December the outlying districts of Indore and Bhopal States, and the whole of the Malwa Agency were affected. The disease also broke out in the southern districts (Shahjapur and Bhilsa) of the Gwalior State and in the town of Lashkar. The Bhopawur Agency, where the plague first appeared in 1902, and the Bundelkhand Agency were singularly free both from plague and other epidemics during the year under report.

NATIVE STATES.

There was a satisfactory diminution of serious crime in Gwalior, Indore and Bhopal.

In the Indore State various administrative changes were effected by the Council of Regency. The provisions of the Indian Penal Code and the Code of Criminal Procedure, 1898, were formally adopted subject to certain alterations in detail to suit local requirements. On the 30th September 1903, when the financial year closed, the balance to the credit of the Indore State amounted approximately to £2,333,000, exclusive of the railway loan of £666,000 to the Government of India. The income of the year was £385,500, against an expenditure of £378,800.

Her Highness the Begam of Bhopal proceeded on a pilgrimage to Mecca accompanied by her two sons. Her Highness embarked at Bombay on the 30th October 1903 and returned on the 25th March 1904.

The Rana of Ali Rajpur was invested with ruling powers in January 1904, subject to certain restrictions as to the administration of the financial affairs of his State.

The total outlay on Imperial Public Works in Central India amounted to £24,700, of which £9,800 was spent on communications; £7,200 on establishments; £5,700 on Civil buildings; and £1,200 on Military works. The total expenditure on Public Works in the Native States of the Agency was £162,400, as against £214,300 in 1902–03.

The amounts expended under this head by the principal States were as follows:—

| State. | Amount expended on Public Works. | |
|---|---|---|
| | 1902–03. | 1903–04. |
| | £ | £ |
| Gwalior - - - - | 122,900 | 82,350 |
| Indore - - - - | 32,200 | 15,960 |
| Bhopal - - - - | 9,460 | 8,640 |

Bengal.

In the Native States of Bengal no event of political importance occurred during the year under review.

In the Hill Tippera State the year was a prosperous one; excellent crops were reaped, and the public health was good. The total gross revenue receipts amounted to £114,000 and the expenditure to £103,000 as against £107,000 and £116,000 respectively in the previous year.

In Cooch Behar there was a slow and healthy expansion of revenue. The State is reported to have recovered from the immediate effects of the disastrous earthquake of 1897. The health of the people was good and their general condition prosperous.

In Chota Nagpur the following States were in charge of their respective chiefs—Changbhakhar, Jaspur, Korea, Seraikela and Sirguja. The administration of the remaining States of Udaipur, Bonai, and Kharsawan, owing to the minority of their Chiefs, continued to be carried on under the Commissioner's supervision by managers appointed by Government for the purpose. The rainfall throughout the States was generally sufficient, and the crops were good. The health of the people was satisfactory excepting in Udaipur, where fever was rife throughout the year. Settlement operations were initiated in the Seraikela and Kharsawan States under the supervision of the Director of Land Records and Agriculture, Bengal. Part of the expense of these operations will be borne by Government. Quiet had been restored in Seraikela, where, as reported in last year's statement, serious disturbances occurred in 1902–03 in connection with the resettlement which had been made by the Raja.

Public health in the Tributary Mahals of Orissa was not good during the year under report. Cholera in an epidemic or sporadic form appeared in all the States except Talcher, which, however, suffered from small-pox. Cholera wrought the greatest havoc in Hindol, Narsingpur, Nayagarh, and Baramba, and the loss of life amounted to 1,150, 436, 814, and 802 respectively. The

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rainfall was seasonable and well distributed, whilst the prices of food-grains ruled easy, and there was a decrease of crime, attributed to more general prosperity.

The affairs of Sikkim and Bhutan have been mentioned in the account of the Frontier States, *see* page .

United Provinces of Agra and Oudh.

In the Native States of the United Provinces of Agra and Oudh there were no administrative changes during the year under review. The financial position of the Rampur State was sound. The total revenue amounted to £233,000 and the expenditure to £213,000. The State is reported to have benefited by the gradual extension of irrigation works, which have brought in a direct return in receipts for water supplied, and have rendered the cultivation more stable. The collections of the current revenue were better by £6,000 than in the previous year, and the unrealised balance for 1903–04 was only £1,000. The State was free from plague; but there was a serious outbreak of small-pox, and the mortality amongst non-inoculated children was high. Vaccination unfortunately appears to be unpopular with the people.

The revenue of the Tehri State, which is largely derived from forests, showed a steady increase, and amounted to about £28,000, whilst the expenditure did not exceed £20,000. The out-turn of both *rabi* and *kharif* crops was good, and there was little cattle disease. The public health, however, was unsatisfactory and epidemics of cholera and small-pox broke out during the year, cholera claiming 1,029 victims. The dispensaries continued to do good work, and the number of out-door patients increased by 3,385.

In the Native States in the Punjab agricultural conditions were favourable, except in the Chamba State, where the harvests were poor and cattle disease was prevalent.

Plague was rife during the year. It affected a wider area than in 1902–03, and was particularly severe in the States of Patiala, Jind, Nabha, Kapurthala, and Maler Kotla. In Jind and Nabha the people were prompt to evacuate their houses on the first appearance of the disease, and in Patiala they regarded with less suspicion than formerly the efforts of the authorities to assist them.

In November 1903 the Nawab of Bahawalpur was invested by His Excellency the Viceroy with the full powers of a ruling Chief. The Bahawalpur State was thereafter included in the Phulkian Agency. The financial condition of the State was sound, there being a reserve of nearly £200,000 in the treasury.

The improvement in the condition of the Patiala State which was effected in 1902–03, was continued during the year under review. The debts of the late Maharaja were settled; all outstanding claims were adjusted, and the reserve in the treasury amounted to about £133,000. Good progress was also made in the Settlement operations under the control of the British Settlement Commissioner; and the disputes between landlords and tenants referred to in last year's Statement were to a large extent settled.

The Raja of Mandi whose succession was recorded in last year's Statement was formally installed on the *gadi* of his State. The Raja is being instructed in the duties of government under the guidance of a British Officer who has been appointed Superintendent of the State for a period of two years.

The Chief of the Chamba State, Raja Sham Singh, abdicated voluntarily during the year under review, in favour of his brother Mian Bhure Singh, C.I.E.

There was some improvement in the agricultural and financial conditions of the States of Patandi, Loharu, and Dujana, which suffered severely in recent years of scarcity and famine.

Owing to the continued misconduct of the Raja of Bilaspur—one of the Simla Hill States—it was found necessary to deprive him of his authority as a ruling Chief and to place the State under management. During the year under report the administration was satisfactorily conducted by a Native Officer specially selected for the purpose.

On the Punjab border peace was fully maintained during the year under review.

NATIVE STATES. Central Provinces.

The Feudatory States of the Central Provinces enjoyed a prosperous season. The monsoon, though not well established till July, proved to be one of the most favourable that have been experienced for many years past, and the out-turn of the autumn crops, upon which so many of the States entirely depend, was most satisfactory. Prior to the monsoon the condition of two of the States, Nandgaon and Khairagarh, gave ground for some alarm, but the distress was merely local and temporary, and all trace of it vanished in the autumn. In the other States the condition of the people, even in the early part of the year, was vastly better than that of their neighbours in the adjoining British districts, where the season of 1902 had been an adverse one, and they were therefore all the better equipped to take full advantage of the excellent harvest in the later months. The trade of the year was quite up to normal, while prices were fairly low throughout. The year ended amid unusual plenty, which caused the general outlook to be one of considerable promise. Almost every department of administration in the States profited directly or indirectly by the general prosperity. Finances improved, education made a remarkable advance, especially among the lower classes, and crime decreased. The welfare of the community at large was reflected in the increased birth-rate, in the rise of the revenue from excise receipts, and in the almost total absence of emigration.

The death of three of the Chhattisgarh Feudatory Chiefs occurred during the year under review, viz., Raja Sir Sudhal Deo, K.C.I.E, of Bamra ; Digbijai Jugul Kishore Dass, minor Chief of Chhuikhadan ; and Maharaja Dhiraj Narhari Deo of Kanker. The last-named was succeeded by his nephew, in whose case certain temporary conditions have been attached to his investiture with ruling powers. The death of the minor Chief of Chhuikhadan, who is succeeded by his younger brother, leaves that State still under the direct management of Government. In Bamra no changes of importance have been necessitated by the accession of Raja Sir Sudhal Deo's eldest son, as the latter has for some years past undertaken an increasing share in the management of the State.

Madras.

The Native States under the political control of the Government of Madras enjoyed a favourable season. The rainfall was generally plentiful and the out-turn of crops was satisfactory, whilst the public health was fairly good.

In Travancore the exports amounted to £1,247,000 and the imports to £677,000, as against £1,057,000 and £837,000 respectively in 1902–03. Products of the cocoanut formed more than half the entire exports. The total expenditure on Public Works was £178,000, of which sum £60,000 was expended on communications, £29,000 on buildings, and £27,000 on irrigation—the latter expenditure being almost entirely devoted to the Kotayar project, on which the total outlay had amounted to nearly £160,000. The total revenue, excluding debt heads, amounted to £680,000, being the highest on record, and the expenditure to £708,000, which included certain items of extra expenditure, including the outlay on the Kotayar project, which was met from current revenue. Settlement operations were still in progress, but were proceeding slowly. The number of reported police cases fell by 600, but among the grave crimes there was an increase in murder, culpable homicide, dakaiti, and robbery, the number of dakaiti cases rising from 49 to 71.

There was a decline in the registration of vital statistics and a very serious fall in the number of vaccination operations. These decreased by more than 100,000, and, although this was in part due to the disbanding of a special staff employed in the previous year, the average number of operations performed by the vaccinators maintained fell by more than 800.

The total number of schools in the State increased by 11, and of pupils by 6,750. Among boys of school age 39·9 per cent. were under instruction, and among girls 12·7 per cent. The total expenditure on education amounted to £36,800, or £3,600 more than in the preceding year.

In the Cochin State the current demand of land revenue amounted to £50,000, of which 99·5 per cent. was collected ; but a large amount of disputed arrears was held in abeyance. Survey operations were conducted more economically, and it was hoped that they will be completed in four

NATIVE STATES.

years. The total revenue was £161,000 and the expenditure £174,000, leaving a deficit of £13,000. The expenditure on Public Works amounted to £17,700, as against £18,000 in the preceding year. The total expenditure on education amounted to £6,500. There was an increase both in the number of schools and scholars; 55 per cent. of the male population of school age and 22 per cent. of the female population were under instruction, more than half the pupils being in unaided schools. As in Travancore there was a very serious decline in vaccination operations.

The financial condition of the Pudukkottai State was satisfactory. There was a closing balance of £78,000. The total number of educational institutions increased from 271 to 277, of which 146 were aided and 35 were maintained by the State. The total expenditure on education was £2,600.

In the Banganapalle State, survey and demarcation work was completed, and settlement was commenced. There was a slight increase in the revenue collections, and the total revenue of the State was £14,000, the expenditure being about £11,000. The work of the police was very poor, only 17 per cent. of the cases reported being charged; of six dakaiti and robbery cases, five were treated as impossible to detect.

In the Sandur State there was an increase both in holdings and cultivation. The final records of the survey of State villages were received, and the boundary of the jagir villages was completed. The total revenue of the State was £3,600 and the expenditure amounted to about £3,000.

Bombay.

In the Native States under the political supervision of the Government of Bombay, the season under review was not an especially favourable one to agriculturists. The rainfall, though sufficient in quantity, was in many places unseasonable, whilst in some of the States considerable damage was done to the crops by swarms of locusts. Fair harvests, however, were on the whole, reaped; the cotton crop was good in all districts and commanded a high price; the prices of grain fell slightly, and there was nothing that approached real scarcity.

In Kathiawar some progress was made in bringing into cultivation land that had long been untilled. In the Native States of Bombay, as in the British districts of the Province, the mortality from plague was heavier than in the preceding year. Two States only, Bhor and Savantvadi, were altogether free from the disease.

Owing to the prevalence of plague there was a considerable falling-off in the number of pupils attending schools. There was a general decrease in crime throughout the States.

The aggregate gross revenue of the Native States amounted to about £3,080,000, an improvement of nearly £460,000 on the figures recorded in last year's statement. All the important States shared in this improvement. The trade of Kathiawar and Cutch showed a decrease in imports but a satisfactory increase in exports. In the case of Kathiawar, this increase amounted to over 100 per cent.

The outlay on Public Works in the various States did not differ materially from that in 1902–03. The principal variations in expenditure under this head were as follows: Cutch £11,800 as against £21,200 in the preceding year; and Kolhapur £21,600, as against £19,600 in 1902–03.

The only administrative changes of importance during the year under review were the installation of the young Chief of Sangli on the *gadi* of his State, and the investiture of the Chiefs of Jamkhandi and Mudhol with full ruling powers.

# CHAPTER XVII.

ARMY.

## ARMY.

The sanctioned establishment for 1903–04 was as follows :—

| | |
|---|---|
| British Troops | 74,224 |
| Miscellaneous Officers | 1,087 |
| Native Troops (including European Officers) | 148,205 |
| Total | 223,516 |
| Corresponding Total for 1902–1903 | 221,161 |

The late Hyderabad contingent, which was incorporated in the Indian Army early in 1903–04, is not included in the above numbers. Its establishment, as incorporated, was 6,981.

The actual strength and distribution of the Army in India on the 1st April 1904 were as follows :—

| — | Number of Officers and Men. |
|---|---|
| **Punjab Command.** | |
| *British.* | |
| Cavalry (3 regiments) | 2,158 |
| Artillery (22⅓ batteries and companies) | 3,483 |
| Engineers | 10 |
| Infantry (14 battalions) | 13,841 |
| | 19,492 |
| *Native.* | |
| Cavalry (15 regiments) | 9,367 |
| Artillery (8⅔ batteries, and Native drivers of British batteries). | 3,739 |
| Sappers and Miners (5 companies) | 611 |
| Infantry (36 battalions) | 33,994 |
| | 47,711 |
| | 67,203 |
| **Bengal Command.** | |
| *British.* | |
| Cavalry (3 regiments) | 1,939 |
| Artillery (28 batteries and companies) | 4,744 |
| Engineers | 59 |
| Infantry (17 battalions) | 17,573 |
| | 24,315 |
| *Native.* | |
| Cavalry (11 regiments) | 7,094 |
| Artillery (Native drivers of British batteries). | 756 |
| Sappers and Miners (5 companies) | 955 |
| Infantry (29½ battalions) | 27,825 |
| | 36,630 |
| | 60,945 |
| **Madras Command.** | |
| *British.* | |
| Cavalry (2 regiments) | 1,350 |
| Artillery (12 batteries and companies) | 2,147 |
| Engineers | 30 |
| Infantry (6 battalions) | 6,318 |
| | 9,845 |
| *Native.* | |
| Cavalry (5 regiments) | 2,987 |
| Artillery (Native drivers of British batteries). | 270 |
| Sappers and Miners (6 companies) | 942 |
| Infantry (20½ battalions) | 16,652 |
| | 20,851 |
| | 30,696 |

| — | Number of Officers and Men. |
|---|---|
| **Bombay Command.** | |
| *British.* | |
| Cavalry (1 regiment) | 688 |
| Artillery (27 batteries and companies) | 4,314 |
| Engineers | 68 |
| Infantry (11⅝ battalions) | 11,432 |
| | 16,502 |
| *Native.* | |
| Cavalry (8⅝ regiments) | 5,316 |
| Artillery (Native drivers of British batteries). | 1,067 |
| Sappers and Miners (7 companies) | 1,087 |
| Infantry (30 battalions) | 24,442 |
| | 31,912 |
| | 48,414 |
| **Burma District.** | |
| *British.* | |
| Artillery (2 companies) | 309 |
| Engineers | 31 |
| Infantry (4 battalions) | 3,676 |
| | 4,016 |
| *Native.* | |
| Artillery (2 batteries) | 635 |
| Sappers and Miners (1 company) | 183 |
| Infantry (8 battalions) | 6,760 |
| | 7,578 |
| | 11,594 |
| **Sikkim-Tibet Mission.** | |
| *British.* | |
| Artillery (⅓ battery) | 42 |
| Engineers | 4 |
| Infantry (detachment) | 18 |
| | 64 |
| *Native.* | |
| Artillery (Native drivers of British battery). | 53 |
| Sappers and Miners (2 companies) | 392 |
| Infantry (3 battalions) | 2,426 |
| | 2,871 |
| | 2,935 |

| — | Number of Officers and Men. |
|---|---|
| CORPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA. | |
| *Native.* | |
| Bodyguards (Governor General's and Governors'). | 268 |
| Resident's escort, Nepal - - | 95 |
| | 363 |
| GRAND TOTAL. | |
| *British.* | |
| Cavalry (9 regiments) - - | 6,135 |
| Artillery (92 batteries and companies) | 15,039 |
| Engineers - - - - | 202 |
| Infantry (52⅝ battalions) - - | 52,858 |
| | 74,234 |

| — | Number of Officers and Men. |
|---|---|
| GRAND TOTAL—*cont.* | |
| *Native.* | |
| Cavalry (39⅝ regiments) - - | 25,032 |
| Artillery (10⅔ batteries, and Native drivers of British batteries). | 6,520 |
| Sappers and Miners (27 companies) - | 4,170 |
| Infantry (127 battalions) - - | 112,194 |
| | 147,916 |
| | 222,150 |
| Officers on the staff - - - | 638 |
| | 222,788 |

The establishment* was short by three battalions of Native Infantry in China, and by the following Native troops in Somaliland :—

One-third battery of Artillery.
Two companies of Sappers and Miners.
Four battalions of Infantry.

There was an excess of British Infantry owing to a battalion, which would otherwise have been relieved, having been specially detained at Aden. Three companies of this battalion were employed in Somaliland.

The total of the Native Army Reserve in India on 1st April 1904 was 20,769.

The net expenditure on the Army in 1903–04 was £16,775,780. The total in 1902–03 was £16,221,402.

The number of Volunteers in the whole of India on 1st April 1904 was as under :—

| Command. | Enrolled Strength. | Efficient. |
|---|---|---|
| Punjab - - - - - | 2,217 | 2,120 |
| Bengal - - - - - | 14,265 | 13,916 |
| Madras - - - - - | 7,518 | 7,337 |
| Bombay - - - - - | 6,082 | 5,804 |
| Burma - - - - - | 2,862 | 2,789 |
| | 32,944 | 31,966 |

On the 1st April 1903 the number of enrolled Volunteers was 32,496, of whom 30,980 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1903–04 was 928.

* The five battalions of Native Infantry regularly employed in the Colonies are not reckoned as part of the establishment.

ARMY. The following changes in army organisation, &c. came into effect in 1903–04:—

The separation of the Burma district from the Madras command, which had been sanctioned during the preceding year, was carried out.

The district styled "The Punjab Frontier Force and Frontier District" was abolished, and its territorial limits divided into three distinct districts. The Chitral garrison, previously an independent command, was subsequently included in one of these, the Peshawar district.

Revisions of establishment or redistribution took place in several departments of the Staff, viz.:—Military Accounts, Ordnance, Judge Advocate General's, Cantonment Magistrates', and Army Remount. The pay of officers of the Ordnance Department was increased. The control of operations connected with horse, mule, and donkey breeding in certain selected districts was transferred from the Civil Veterinary Department to the Army Remount Department.

The absorption of the Hyderabad contingent into the Indian Army was completed. The artillery was disbanded, and one regiment of cavalry was broken up, each of its three squadrons being added to one of the other regiments. The cavalry was then incorporated in the Bombay command, and the infantry in the Madras command.

Some changes were made in the organisation of the Royal Garrison Artillery in India. Horses were substituted for bullocks for the guns and first line of ammunition waggons of the four existing heavy batteries, and two more companies of Garrison Artillery were converted into heavy batteries, provided with bullock draught.

The establishment of the three corps of sappers and miners was revised, and a mounted detachment was formed. The terms of service and pay of the Indian Submarine Mining Corps were revised.

Alterations were made in the class composition, linking, &c. of various Native regiments—Cavalry and Infantry. An increase was sanctioned to the establishment of British Officers of Native regiments, so as to give to each regiment of the Punjab command an establishment of 13 officers, and to each regiment of the other commands (with a few exceptions) an establishment of 12 officers.

A revised system of numbering the regiments and batteries of the Native Army was adopted, the existing system (containing as it did so many series of numbers) having been found inconvenient and detrimental to efficiency. The renumbering was accompanied by considerable changes in nomenclature. Honorary Colonels were appointed to Native regiments under similar conditions to those obtaining in the British Service.

The conditions of service in India of officers of Royal Engineers were revised, and the system of requiring election for continuous service in India as a qualification for the benefits of Indian rates of pension, Indian furlough rules, &c. was abandoned.

The rates of pay and pension of the Indian Medical Service were increased. Increased pay was also granted to the officers of the Royal Army Medical Corps on the Indian establishment.

The regulations for the Indian Army Reserve of Officers were revised, and regulations for the calling out of Volunteers for actual military service were issued.

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His Majesty was pleased to approve of a new medal, to be designated the "India General Service Medal," being struck to commemorate military operations in or on the frontier of India. This medal was granted with a clasp, "Waziristan, 1901–02," to the troops engaged in the Mahsud-Waziri Blockade and connected operations.

## MILITARY OPERATIONS.

ADEN. Hinterland. It was found necessary to employ a military force for the protection of the Aden Boundary Commission. From before the commencement of the year 1903–04 until after its conclusion, troops (averaging about 2,000

combatants) were on field service in the Hinterland under exceptionally trying conditions, due to the inhospitable nature of the country and its torrid climate. Although there was not a great amount of fighting, the troops were on several occasions engaged with the tribesmen. The casualties (excluding those among followers) amounted to 10 killed and 21 wounded. There were also 34 deaths in the field hospitals, and several at Aden, the result of illness contracted in the field. A large number of men were also invalided. ARMY.

The Thibet Mission was accompanied by an escort of troops of the strength detailed at page 190. Unfortunately, the Mission was not allowed to proceed in peace. The details of the campaign which resulted belong to the year 1904–5, but active hostilities were actually commenced by the Thibetans on the 31st March 1903, *i.e.*, the last day of the year under review. Thibet.

## MILITARY WORKS.

The total expenditure on military works amounted to £989,571 in 1903–04 against £1,058,368 in 1902–03. The expenditure in 1903–04 includes an outlay of £539,606 on new works and £253,582 on repairs. Under the head of new works additions to the barrack and hospital accommodation for British and Native troops accounted for over £200,000.

## MARINE.

The net expenditure on marine services amounted to £335,386 in 1903–04 as against £342,807 in 1902–03. In this amount are included the cost of the Royal Indian Marine, the contribution towards the expenses of His Majesty's ships employed in the Indian seas, and charges for pilot establishments and vessels, coast lights, and other smaller items.

On the 1st April 1904 the Royal Indian Marine consisted of ten sea-going vessels, six inland and harbour vessels, three torpedo boats, a submarine mining flotilla, and a number of small steamers, launches, &c. There was an establishment of 90 executive officers, 71 engineer officers, and 60 warrant officers; and the Native crews of the vessels (seamen, artificers, and others) numbered in all 1,747.

# APPENDIX.

TABLE showing the NET REVENUE and EXPENDITURE in the several PROVINCES of INDIA and in ENGLAND.

| | Bengal. | | United Provinces. | | Punjab. | | Burma. | | Central Provinces. | | Assam. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. |
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 2,712,066 | 2,715,686 | 4,162,690 | 4,196,688 | 1,427,409 | 1,547,303 | 2,220,093 | 2,341,005 | 524,945 | 556,395 | 427,991 | 358,181 |
| Forest | 83,730 | 76,799 | 134,672 | 151,550 | 105,656 | 114,195 | 448,843 | 550,973 | 100,950 | 92,593 | 38,590 | 44,986 |
| Tributes | *—2,648* | *—2,317* | *—1,682* | *—1,731* | 19,447 | 18,895 | 23,076 | 26,995 | 18,087 | 11,576 | 2,160 | 2,284 |
| Opium | 2,076,375 | 2,511,934 | 36,740 | 36,424 | 4,874 | 4,918 | 29,467 | 39,972 | 16,034 | 17,424 | 28,878 | 30,245 |
| Salt | 1,776,221 | 1,440,915 | — | — | — | — | 120,416 | 102,568 | — | — | — | — |
| Stamps | 1,294,043 | 1,310,013 | 530,186 | 543,442 | 260,111 | 266,473 | 173,270 | 193,360 | 96,356 | 95,685 | 67,889 | 65,369 |
| Excise | 1,051,772 | 1,085,628 | 553,947 | 628,827 | 177,622 | 184,413 | 383,434 | 496,515 | 149,658 | 169,590 | 194,405 | 201,300 |
| Provincial rates | 671,580 | 685,961 | 703,511 | 698,207 | 270,373 | 298,229 | 111,969 | 117,098 | 77,580 | 75,373 | 45,521 | 40,880 |
| Customs | 1,174,040 | 1,108,310 | 4,066 | 5,097 | *—1,144* | *—1,273* | 850,533 | 860,391 | 8,006 | 8,740 | — | — |
| Assessed taxes | 394,352 | 334,156 | 174,987 | 136,923 | 106,101 | 86,139 | 82,598 | 80,795 | 24,454 | 20,219 | 21,211 | 16,971 |
| Registration | 112,308 | 110,803 | 29,793 | 30,360 | 14,203 | 14,599 | 9,264 | 11,357 | 5,807 | 5,722 | 4,719 | 4,634 |
| Post office | *—23,872* | *—23,277* | *—12,539* | *—12,765* | *—9,477* | *—9,682* | *—18,380* | *—19,080* | *—3,012* | *—4,210* | *—3,357* | *—3,415* |
| Telegraph | — | — | — | — | — | — | — | — | — | — | — | — |
| Railways | 711,276 | 794,427 | 765,240 | 726,071 | 1,145,637 | 1,703,099 | 317,963 | 332,590 | 335,595 | 363,238 | 11,934 | 29,389 |
| Irrigation | *—155,508* | *—166,273* | 198,322 | 186,725 | 758,603 | 856,224 | *—94,610* | *—97,037* | *—6,592* | *—18,313* | — | — |
| Other heads | 52,261 | 63,573 | *—4,697* | 8,002 | *—6,762* | *—30,490* | *—13,495* | *—2,975* | 13,075 | *—76,374* | *—3,680* | *—4,756* |
| Total | 11,927,996 | 12,026,538 | 7,275,242 | 7,337,820 | 4,272,653 | 5,053,042 | 4,644,446 | 5,034,527 | 1,360,943 | 1,317,658 | 836,261 | 786,068 |
| EXPENDITURE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Interest | *—102,512* | *—100,314* | 46,693 | 46,776 | 10,757 | 5,935 | *—577* | *—1,305* | *—278* | *—4,500* | *—50* | *—61* |
| Collection of revenue | 635,510 | 663,046 | 626,753 | 642,500 | 345,212 | 377,286 | 638,007 | 691,431 | 206,119 | 206,664 | 94,560 | 104,350 |
| General administration | 165,059 | 167,415 | 129,031 | 124,325 | 90,423 | 84,615 | 104,944 | 94,066 | 45,798 | 51,164 | 27,327 | 26,195 |
| Law and justice | 681,754 | 677,203 | 402,110 | 405,426 | 256,173 | 257,485 | 202,524 | 212,658 | 79,579 | 90,501 | 45,286 | 49,290 |
| Police | 374,076 | 392,291 | 530,615 | 528,593 | 204,802 | 203,393 | 604,243 | 614,154 | 94,682 | 95,813 | 102,974 | 88,591 |
| Marine | *—13,994* | *—18,408* | — | — | — | — | 27,392 | 33,190 | — | — | 4,667 | 5,645 |
| Education | 271,528 | 298,110 | 153,138 | 162,179 | 94,468 | 104,332 | 71,615 | 74,338 | 53,630 | 55,794 | 27,207 | 35,005 |
| Ecclesiastical | 13,520 | 13,388 | 16,263 | 16,417 | 12,545 | 13,611 | 6,158 | 6,722 | 3,003 | 4,292 | 1,323 | 1,263 |
| Medical | 143,060 | 151,113 | 105,009 | 93,917 | 113,814 | 94,272 | 59,063 | 65,544 | 27,857 | 32,535 | 27,638 | 29,220 |
| Political | 4,683 | 3,119 | 8,064 | 7,665 | 46,805 | 50,913 | 25,119 | 26,766 | 2,870 | 2,977 | 11,406 | 10,711 |
| Scientific and minor | 27,370 | 34,071 | 17,363 | 19,086 | 15,157 | 17,657 | 13,888 | 14,886 | 6,989 | 10,118 | 2,853 | 2,750 |
| Miscellaneous civil charges | 489,330 | 439,523 | 249,765 | 247,981 | 116,834 | 116,213 | 73,019 | 77,261 | 47,559 | 52,955 | 15,035 | 15,032 |
| Civil works | 704,103 | 850,034 | 484,221 | 519,092 | 338,504 | 384,588 | 635,755 | 683,026 | 187,700 | 193,804 | 168,402 | 194,750 |
| Army | — | — | — | — | — | — | — | — | — | — | — | — |
| Military works | 5,484 | 4,611 | 1,350 | 1,807 | 6,893 | 3,700 | 50,781 | 36,772 | 1,310 | 841 | 4,080 | 5,526 |
| Other heads | 95,393 | 615,203 | 16,670 | 271,615 | 78,486 | 55,961 | *—217,304* | *—127,724* | 26,679 | *—2,555* | 77,614 | 76,586 |
| Total | 3,514,364 | 4,190,405 | 2,787,045 | 3,087,379 | 1,730,873 | 1,769,961 | 2,294,630 | 2,501,785 | 783,497 | 790,403 | 610,322 | 644,763 |

TABLE showing the NET REVENUE and EXPENDITURE in the PROVINCES of INDIA and in ENGLAND—*continued.*

| | Madras. | | Bombay. | | Berar. | | North-West Frontier Province. | | India, General. | | England. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1902-03. | 1903 04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. | 1902-03. | 1903-04. |
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 3,543,294 | 3,508,661 | 2,015,629 | 2,558,136 | 466,662 | 521,452 | 109,557 | 116,198 | 79,317 | 95,033 | — | — |
| Forest | 172,869 | 175,528 | 154,849 | 183,052 | 11,146 | 40,437 | 6,735 | 6,787 | 36,989 | 46,494 | — | — |
| Tributes | 299,197 | 299,221 | 83,525 | 83,831 | *—172* | *—167,249* | *—125* | *—125* | 141,130 | 139,445 | — | — |
| Opium | — | — | 659,293 | 869,060 | — | — | 451 | 613 | *—797* | *—810* | *—4,446* | *—3,600* |
| Salt | 1,323,140 | 1,267,225 | 1,596,626 | 1,236,960 | — | — | — | — | 1,115,530 | 934,025 | — | — |
| Stamps | 542,064 | 587,177 | 392,790 | 403,013 | 29,363 | 55,640 | 25,577 | 25,321 | 22,752 | 22,745 | — | — |
| Excise | 1,039,741 | 1,179,102 | 686,801 | 761,237 | 60,920 | 132,910 | 12,819 | 13,601 | 73,062 | 79,376 | — | — |
| Provincial rates | 601,134 | 601,990 | 188,608 | 226,146 | 37,541 | 43,076 | 22,969 | 24,005 | 10,663 | 11,003 | — | — |
| Customs | 316,275 | 344,348 | 1,476,635 | 1,511,472 | 597 | 1,132 | *—30* | — | 869 | 849 | — | — |
| Assessed taxes | 208,000 | 170,740 | 272,088 | 252,804 | 8,057 | 9,621 | 7,606 | 6,635 | 103,218 | 91,633 | — | — |
| Registration | 95,668 | 102,353 | 35,003 | 36,681 | 2,680 | 6,462 | 2,047 | 2,007 | 1,167 | 1,065 | — | — |
| Post office | *—6,989* | *—7,102* | *—6,853* | *—6,833* | *—599* | *—1,328* | *—1,516* | *—1,265* | 269,668 | 297,579 | *—99,915* | *—104,694* |
| Telegraph | — | — | — | — | — | — | — | — | 224,021 | 177,844 | *—256,784* | *—236,033* |
| Railways | 557,396 | 601,327 | 1,523,369 | 1,614,302 | — | — | — | — | 1,381,157 | 1,278,876 | *—6,520,623* | *—6,582,650* |
| Irrigation | 141,334 | 113,653 | *—79,212* | *—55,550* | — | — | 38,330 | 32,526 | *—605,002* | *—622,048* | *—1,917* | *—2,150* |
| Other heads | 20,373 | 7,666 | *—151,915* | 30,258 | *—100,851* | 8,228 | 8,487 | 5,311 | *—21,455* | 77,212 | *—26,869* | *—10,779* |
| Total | 8,853,493 | 8,921,899 | 8,847,236 | 9,698,567 | 515,344 | 650,381 | 232,907 | 231,614 | 2,832,289 | 2,630,321 | *—6,910,554* | *—6,940,906* |
| EXPENDITURE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Interest | *—30,026* | *—24,244* | *—77,464* | *—130,050* | *—1,055* | *—1,366* | *—454* | *—531* | *—1,726,084* | *—1,830,534* | 2,846 068 | 2,841,760 |
| Collection of revenue | 1,120,257 | 1,122,391 | 814,714 | 822,039 | 31,983 | 113,899 | 45,652 | 57,465 | 101,921 | 89,905 | 34,170 | 47,409 |
| General administration | 126,831 | 113,361 | 155,244 | 143,300 | 12,535 | 15,790 | 16,317 | 17,249 | 370,631 | 376,258 | 251,474 | 279,602 |
| Law and justice | 316,146 | 317,970 | 332 925 | 325,975 | 9,424 | 20,676 | 30,304 | 30,555 | 104,638 | 102,401 | 275 | 861 |
| Police | 287,576 | 290,704 | 381,972 | 389,481 | 26,115 | 51,665 | 64,166 | 63,922 | 39,334 | 43,762 | 1,675 | 967 |
| Marine | 1,136 | 1,079 | *—1,710* | *—2,621* | — | — | — | — | 77,402 | 56,318 | 247,914 | 260,182 |
| Education | 202,661 | 195,913 | 211,083 | 209,014 | 9,643 | 20,302 | 5,037 | 5,678 | 13,527 | 16,915 | 1,882 | 3,708 |
| Ecclesiastical | 22,610 | 20,142 | 21,352 | 23,201 | 40 | 476 | 2,157 | 2,549 | 11,406 | 10,742 | 646 | 936 |
| Medical | 198,833 | 218,987 | 160,043 | 123,598 | 7,227 | 12,841 | 6,968 | 6,820 | 27,451 | 28,426 | 6,968 | 4,536 |
| Political | 6,339 | 6,374 | 72,193 | 73,804 | — | — | 139,858 | 155,146 | 494,879 | 360.004 | 7,249 | 5,092 |
| Scientific and minor | 14,648 | 5,182 | 17,987 | 19,323 | 1,086 | 1,994 | 1,374 | 1,159 | 253,583 | 278,475 | 32,926 | 33,799 |
| Miscellaneous civil charges | 225,703 | 243,840 | 268,596 | 268,502 | 14,200 | 14,853 | 14,569 | 15,230 | *—157,493* | *—132,429* | 2,283,141 | 2,272,480 |
| Civil works | 443,455 | 484,218 | 402,065 | 423,152 | 25,276 | 57,060 | 127,045 | 138,578 | 121,730 | 124,227 | 78,883 | 65,855 |
| Army | 2,055,172 | 2,297,472 | 2,428,088 | 2,660,869 | — | — | — | — | 6,840,483 | 7,256,411 | 4,897,659 | 4,561,029 |
| Military works | 4,731 | 4,804 | 10,754 | 14,246 | 758 | 163 | — | — | 909,620 | 885,820 | 62,607 | 58,335 |
| Other heads | 96,774 | 483,399 | 151,179 | 45,543 | 20,190 | 5,678 | 1,626 | 732 | 654,579 | 654,227 | 2,925 | 22,273 |
| Total | 5,092,846 | 5,782,598 | 5,319,021 | 5,499,376 | 157,422 | 314,081 | 454,619 | 494,552 | 8,087,607 | 8,320,852 | 10,756,462 | 10,458,824 |

# STATEMENT

EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1904-05.

FORTY-FIRST NUMBER.

LIBRARY OF THE ROYAL ASIATIC SOCIETY.

*(Presented pursuant to Act 21 & 22 Vict. c. 106. s. 53.)*

India Office,
18 May 1906.

ARTHUR GODLEY,
Under Secretary of State for India.

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## NOTE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Of these reports, many are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces, and to the Government of India, for consideration and review before transmission to England. One annual volume which is largely used in the preparation of the Statement is the "Finance and Revenue Accounts of the Government of India," containing the complete audited accounts of the revenue and expenditure—Imperial, Provincial, and Local—of every public department in each Province of India, including the Railways, Irrigation Works, and other commercial enterprises which are under Government management.

Of the reports mentioned above, some, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is at about the same date that the Finance and Revenue Accounts are received.

It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year; and it is often necessary to exceed the prescribed date by some weeks.

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# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.

### ADMINISTRATION.



LIST of the holders in 1904–05 of the more important appointments connected with the administration of India, those appointed during the year being shown in *italics*.

| OFFICE. | | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| Secretary of State - - - | The Right Hon. St. John Brodrick. | 10 October 1903 | |
| Permanent Under Secretary of State. | Sir Arthur Godley, K.C.B. - | 30 September 1883 | |
| Parliamentary Under Secretary of State. | The Earl of Hardwicke (2nd time). | 12 October 1903 | Died 29 November 1904. |
| | *The Marquess of Bath* - | 20 January 1905 | |
| Members of the Council of India | Sir Charles H. T. Crosthwaite, K.C.S.I. | 3 March 1895 | In succession to Sir R. H. Davies. |
| | Sir Steuart C. Bayley, K.C.S.I., C.I.E. | 16 September 1895 | In succession to Sir H. C. Rawlinson. |
| | F. C. Le Marchant - | 27 February 1896 | In succession to B. W. Currie. |
| | General Sir J. J. H. Gordon, K.C.B. | 1 January 1897 | In succession to Sir O. T. Burne. |
| | Sir Dennis Fitzpatrick, K.C.S.I. | 24 April 1897 | In succession to Sir J. Strachey. |
| | Sir J. L. Mackay, G.C.M.G., K.C.I.E. | 27 April 1897 | In succession to Robert Hardie. |
| | Sir John Edge, K.C. - | 30 March 1898 | In succession to Sir C. Turner. |
| | Sir Philip F. Hutchins, K.C.S.I. | 1 August 1898 | In succession to Sir A. J. Arbuthnot. |
| | Lieut.-General Sir A. R. Badcock, K.C.B., C.S.I. | 26 March 1901 | In succession to Sir D. M. Stewart. |
| | Sir William Lee-Warner, K.C.S.I. | 12 November 1902 | In succession to Sir J. Peile. |
| | Rt. Hon. Sir A. P. Macdonnell, G.C.S.I. | 17 January 1903 | Resigned January 1905. Did not act, having held appointment of U.S. for Ireland concurrently. |
| | J. F. Finlay, C.S.I. - - | 10 May 1903 | In succession to Sir J. Westland. |
| Governor-General - - - | The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E. | 6 January 1899 | Reappointed 13 December 1904. |
| | *Lord Ampthill*, G.C.I.E. - | 30 April 1904 | Officiating to 13 December 1904 under the Act of 1861. Governor of Madras. |
| Members of Council - - | General Viscount Kitchener of Khartoum, G.C.B., O.M., G.C.M.G. (extraordinary), Commander-in-Chief. | 28 November 1902 | |
| | Sir Thomas Raleigh, K.C.S.I. | 3 April 1899 | Resigned 17 April 1904. |
| | Sir E. F. Law, K.C.M.G. - | 31 March 1900 | Resigned 9 January 1905. |
| | Major-General Sir E. R. Elles, K.C.B. | 11 April 1901 | |
| | Sir A. T. Arundel, K.C.S.I. | 18 May 1901 | |
| | Sir D. J. Ibbetson, K.C.S.I. | 5 March 1902 | |
| | *E. Erle Richards* - - | 18 April 1904 | |
| | *J. P. Hewett*, C.S.I., C.I.E. - | 23 December 1904 | Officiating from 22 August 1904. |
| | *E. N. Baker*, C.S.I. - - | 10 January 1905 | |
| Lieutenant-Governor of Bengal - | Sir A. H. Leith Fraser, K.C.S.I. | 2 November 1903 | |
| Lieutenant-Governor of the United Provinces of Agra and Oudh. | Sir J. J. D. La Touche, K.C.S.I. | 14 November 1901 | |
| Lieutenant-Governor of the Punjab. | Sir Charles M. Rivaz, K.C.S.I. | 6 March 1902 | |
| | *Sir D. C. J. Ibbetson*, K.C.S.I. | 27 April 1905 | Officiating to 19 October 1905. |

ADMINISTRATION.

| OFFICE. | —— | Date of Appointment or Assumption of Charge of Office. | REMARKS. |
|---|---|---|---|
| Lieutenant-Governor of Burma - | Sir H. S. Barnes, K.C.S.I., K.C.V.O. | 4 April 1903 | |
| Chief Commissioner of the Central Provinces. | Sir F. S. P. Lely, K.C.S.I. - | 18 March 1904 | Officiating. Confirmed 23 December 1904. |
| Chief Commissioner of Assam - | J. B. Fuller, C.S.I., C.I.E. - | 29 April 1902 | Officiating. Confirmed 20 October 1902. |
| Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara. | Sir A. H. T. Martindale, K.C.S.I. | 9 March 1898 | |
| Resident in Mysore and Chief Commissioner of Coorg. | Sir J. A. Bourdillon, K.C.S.I.<br>*A. L. P. Tucker*, C.I.E. - | 5 November 1903<br>21 July 1904 | Officiating to 30 October 1904. |
| Resident, Hyderabad - - | Lieut.-Colonel Sir D. W. K. Barr, K.C.S.I.<br>*C. S. Bayley*, C.S.I. - | 1 September 1900<br>1 March 1905 | |
| Agent to the Governor-General in Central India. | Major H. Daly, C.S.I., C.I.E. | 6 November 1903 | Officiating until 20 March 1904. |
| Resident in Kashmir - - - | E. G. Colvin - - - | 17 March 1903 | Officiating from 24 September 1902. |
| | *Lieut.-Col. T. C. Pears* - | 21 March 1905 | |
| Resident and Agent to the Governor-General, Baroda. | Lieutenant-Colonel M. J. Meade, C.I.E. | 5 November 1901 | |
| Agent to the Governor-General in Baluchistan and Chief Commissioner of British Baluchistan. | Col. C. E. Yate, C.S.I., C.M.G.<br>*Major A. H. McMahon*, C.S.I., C.I.E. | 24 December 1900<br>1 January 1905 | |
| Chief Commissioner of the N.W. Frontier Province. | Lieut.-Colonel H. A. Deane, C.S.I. | 9 November 1901 | |
| Political Resident, Persian Gulf and H.B.M.'s Consul-General at Bushire. | Major (temporary Lieut.-Colonel) C. A. Kemball, C.I.E.<br>*Major P. Q. Cox*, C.I.E. - | 1 July 1901<br>1 January 1905 | Officiating from 7 April 1900.<br>Officiating from 25 April 1904. |
| Governor of Madras - - - | Lord Ampthill, G.C.I.E. - | 28 December 1900 | Acting Viceroy and Governor-General 30 April to 13 December 1904. |
| | *Sir J. Thomson*, K.C.S.I. - | 30 April 1904 | Acting Governor to 13 December 1904. |
| Members of Council - - - | Sir J. Thomson, K.C.S.I. -<br>G Stokes, C.S.I. - -<br>*G. S. Forbes* - - | 9 May 1901<br>9 November 1903<br>30 April 1904 | <br><br>Officiating to 13 December 1904. |
| Governor of Bombay - - - | Lord Lamington, G.C.M.G., G.C.I.E. | 12 December 1903 | |
| Members of Council - - - | Sir J. Monteath, K.C.S.I. -<br>E. McG. H. Fulton, C.S.I. -<br>*S. W. Edgerley*, C.I.E. - | 6 August 1900<br>24 April 1902<br>15 October 1904 | Acting Governor, 6 Sept.—12 Dec. 1903.<br><br>Temporary to 17 April 1905. |
| Political Resident, Aden - - | Major-General P. J. Maitland, C.B.<br>*Major-General H. M. Mason.* | 25 June 1901<br>28 June 1904 | |

## LEGISLATION.

LEGISLATION.

Between the 1st April 1904 and the 31st March 1905, nine Acts were passed by the Council of the Governor-General for making Laws and Regulations, three by the Legislative Council of Madras, four by that of Bombay, two by that of Bengal, two by that of the United Provinces of Agra and Oudh, three by that of the Punjab, and three by that of Burma. Four Regulations were also passed by the Governor-General in Council, on the recommendation of the local Governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3.

The following were the more important of the measures referred to :—

Indian Emigration (Amendment) Act, 1904.

Act XII. of 1904 "further to amend the Indian Emigration Act, 1883," was designed to provide for the imposition of a fee on the registration of emigrants under Act X. of 1902 (*see* the chapter of this review dealing with

emigration) similar to that leviable under the Act of 1883, and also to empower the Governor-General in Council to permit, in special cases, emigration under the Act of 1902 from some port other than those from which emigration is ordinarily lawful. LEGISLATION.

Act XIII. of 1904 "further to amend the Indian Articles of War" was passed in order to provide for the confirmation of findings and sentences of courts-martial in the case of persons subject to the Indian Articles of War (Act V. of 1869) who are serving in any place other than India or the United Kingdom. Indian Articles of War (Amendment) Act, 1904.

Act XIV. of 1904 validated certain provisions of the City of Bombay Improvement Act, 1898, which purported to confer upon the High Court a jurisdiction such as it was not competent, under the Indian High Courts Act, 1861, for a local legislature to bestow. Act to supplement certain provisions of the City of Bombay Improvement Act, 1898.

Act XV. of 1904 "further to amend the Indian Stamp Act, 1899," rectified certain anomalies in the law in respect of the duty payable on equitable mortgages, and also amended the provisions of the original Act in regard to the calculation of the stamp duty on mining leases granted by Government. Indian Stamp (Amendment) Act, 1904.

Act XVI. of 1904 repealed certain words in the Sea Customs Act which were superfluous, and had been found to cause some misapprehension as to the meaning of the Act. Sea Customs (Amendment) Act, 1904.

Act I. of 1905 "further to amend the Local Authorities Loan Act, 1879," was passed in connection with the Rangoon Port Bill, in order to remove certain restrictions imposed by the Act of 1879 on the powers of the Rangoon Port Commissioners to borrow money. Local Authorities Loan (Amendment) Act, 1905.

Act II. of 1905 "to validate action taken under the Indian Universities Act, 1904," was designed to remove doubts as to certain points which arose in the construction of the provisions of the Indian Universities Act, 1904 (*see* the chapter dealing with education in last year's issue of this Statement), relating to the constitution of the Senates and Provisional Syndicates. Indian Universities (Validation) Act, 1905.

Act III. of 1905 "to consolidate and amend the law relating to the Government Paper Currency" had, as its primary object, the consolidation of the previous Acts on the subject. Of the amendments in the existing law which it introduced, the most important were contained in section 17, which requires the amount of coin, bullion, and securities in the reserve to be equal to the amount of currency notes for the time being in circulation (excluding those notes which have not been presented for payment within certain specified periods), and section 20, which raises the amount of the reserve that may be invested from ten to twelve crores of rupees, and defines the nature of the securities in which it may be invested. Indian Paper Currency Act, 1905.

Act IV. of 1905 "to provide for investing the Railway Board with certain powers or functions under the Indian Railways Act, 1890," empowered the Governor-General in Council by notification to invest the newly-constituted Railway Board (*see* chapter on railways) with the legal powers hitherto exercised by the Government of India in respect of railways, and prescribed the mode in which communications from the Board are to be signified. Indian Railway Board Act, 1905.

MADRAS.

Act I. of 1904 "to consolidate and amend the law relating to the Municipal Affairs of the City of Madras," repealed the whole of the existing municipal law, and re-enacted it subject to such changes as were considered necessary. These changes included provision for the representation on the Municipal Council of important commercial and industrial interests in the city, the reservation of power to Government to intervene in municipal administration should necessity arise, the amplification of the borrowing powers of the Corporation, the exemption of school buildings and hospitals from the tax on buildings and land and from water tax, various fresh provisions for the regulation of the sale of food and drugs, and additional control in sanitary matters, besides many other new provisions. Madras City Municipal Act, 1904.

BOMBAY.

Bombay Motor Vehicles Act, 1904.

Act I. of 1904 regulated the use of motor cars in the Bombay Presidency.

Khoti Settlement Act Amendment Act, 1904.

Act II. of 1904 "to amend the Khoti Settlement Act, 1880," introduced certain reforms in the method of assessing rents on Khoti tenures in Ratnágiri.

Bombay District Municipal (Amendment) Act, 1904.

Act III. of 1904 "further to amend the Bombay District Municipal Act, 1901," was designed to enable a municipality to prescribe standard weights and measures to be used within its boundaries.

BENGAL.

Sundarbans Act, 1905.

Act I. of 1905 provided for the abolition of the office of Commissioner in the Sundarbans. The administration of the Sundarbans will in future be carried on by the collectors of the districts in which those tracts are situated, with the assistance of deputy collectors.

UNITED PROVINCES.

Benares Family Domains Act, 1904.

Act I. "to provide for the imposition of rates upon land in the Family "Domains of the Raja of Benares, and for the recovery of certain demands "payable in the said domains," was passed at the request of the Maharaja to enable His Highness, his personal exemption from the levy of rates being maintained, to realise the usual rates from the tenants of the domains, and to apply them for local purposes and towards the relief and prevention of famine.

PUNJAB.

Punjab Loans Limitation Act, 1904.

Act I. of 1904 extended from three to six years the period of limitation of suits for the recovery of money due on account of money lent or advanced, or in respect of goods supplied, or on bonds, bills of exchange, or promissory notes.

Sind-Sagar Doab Colonisation (Amendment) Act, 1904.

Act II. of 1904 "to amend the Sind-Sagar Doab Colonisation Act, 1902," was designed to preserve the rights of mortgagees of land acquired by the Government under the original Act, and made certain other formal amendments.

BURMA.

Burma Gambling Act Amendment Act, 1905.

Act I. of 1905 made certain amendments which the working of the principal Act had shown to be desirable in respect of the detection, reporting, and trial of gambling offences, and increased the amount of fines which may be imposed on the owner or keeper of a common gaming-house.

Burma Canal Act, 1905.

Act II. of 1905 was a comprehensive enactment providing for the regulation of irrigation and navigation canals and drainage works, which were not previously regulated by any law of general application to the province.

Burma Fisheries Act, 1905.

Act III. of 1905 "to declare and amend the law relating to Fisheries in Burma" did not introduce any new principles of law or administration, fisheries in Burma having always been regarded as the property of the State, but made certain modifications in the existing law in order to provide more effectually for the preservation and management of fisheries.

# CHAPTER II.

## LOCAL SELF-GOVERNMENT.

GENERAL.

Local self-government, municipal and rural, in the form in which it now prevails in India, is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and the various provincial Acts passed about that time, which form the basis of the provincial systems at present in force. Municipal committees now exist in most places having any pretension to importance, and have charge of municipal business generally, including the care and superintendence of streets, roads, fairs and markets, open spaces, water supply, drainage, education, hospitals, and the like. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, education, hospitals, and dispensaries in rural districts. A large proportion of their income is provided by provincial rates. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1904–05, apart from loans, sale of securities, and such-like extraordinary receipts, was £3,570,300. The sources of this income are shown in the table on the last page of this chapter. Of the revenue classed as "local," amounting to £3,260,600, the rates levied on land, for expenditure on roads, schools, hospitals, and general purposes, account for over 71 per cent.; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, and receipts from corporate property. The balance consists of grants by the Government for educational and other purposes.

The income of the port funds, exclusive of loans, deposits, and advances, amounted in 1904–05 to £1,726,000.

The revenue of cantonment funds amounted to £214,000; that of town and bazaar funds came to £99,000; and other miscellaneous funds had a revenue amounting to £131,200.

Thus, the revenue managed by all the various local bodies amounted in 1904–05 to rather more than £9,000,000, besides large sums proceeding from loans and sale proceeds of investments.

### MUNICIPALITIES.

MUNICIPALITIES. General.

The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals Bombay, Calcutta, and Madras. In the majority of towns, most of the commissioners or members of the committees are elected by the townsfolk under legal rules, but in every town some, and in a few minor towns all the members, are appointed by the Government.

MUNICIPALITIES.

In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere largely exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue, apart from loans and Government contributions, are usually divided under the two heads, "Taxation," and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces, and Bombay; and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. There are also water rates and conservancy rates, tolls on roads and bridges, and taxes on animals and vehicles, and in some places a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses, and fees of various kinds.

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the members of the committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in 1904–05:—

| — | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Natives. |
| *Presidency Towns, &c.:—* | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | Return not available. | | | |
| Bombay | 1 | 72 | — | 16 | 56 | 7 | 65 | 12 | 60 |
| Madras | 1 | 37 | 1 | 16 | 20 | 11 | 26 | 13 | 24 |
| Rangoon | 1 | 25 | — | 6 | 19 | 3 | 22 | 13 | 12 |
| *District Municipalities:—* | | | | | | | | | |
| Bengal | 161 | 2,236 | 128 | 948 | 1,160 | 336 | 1,900 | 261 | 1,975 |
| Bombay (including Karachi). | 162 | 2,216 | 465 | 867 | 884 | 594 | 1,622 | 190 | 2,026 |
| Madras | 60 | 925 | 68 | 421 | 436 | 209 | 716 | 163 | 762 |
| United Provinces* | 89 | 1,249 | 155 | 155 | 939 | 295 | 954 | 238 | 1,011 |
| Punjab† | 188 | 1,703 | 328 | 604 | 771 | 379 | 1,324 | 133 | 1,570 |
| North-West Frontier Province.† | 12 | 172 | 57 | 115 | — | 57 | 115 | 30 | 142 |
| Central Provinces and Berar. | 58 | 757 | 27 | 264 | 466 | 182 | 575 | 82 | 675 |
| Assam | 14 | 140 | 23 | 69 | 48 | 53 | 87 | 30 | 110 |
| Burma | 40 | 512 | 159 | 261 | 92 | 185 | 327 | 145 | 367 |

* Fifteen towns were classed as "notified areas" for the first time this year, and are not included in the statistics given.
† Including "notified areas."

MUNICIPALITIES.

The total indebtedness of municipalities amounted at the end of 1904–05 to £8,788,000, of which £2,503,000 was owed by the Calcutta Municipality and £3,241,000 by Bombay City. Against this total has to be set £750,700 standing at credit of the various sinking funds.

BENGAL. Calcutta.

The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of a chairman and 12 members, who are selected from among the commissioners, four by the elected, and four by the nominated commissioners, and four by the Local Government. The year 1904–05 was marked by sustained progress in all departments of municipal activity, and by a remarkable increase of interest in the administration exhibited by the commissioners. The appointment of standing committees to deal with matters connected with water supply, drainage, and construction has brought the commissioners into practical contact with the work in progress in those departments. The most important work accomplished during the year was the re-organisation of the Accounts Department.

The total receipts of the year amounted to £448,600, showing a satisfactory increase, chiefly due to higher receipts from taxation. The expenditure on revenue account was £434,900, and the cash balances at the end of the year were increased to £55,300. Municipal rates and taxes included, as in the previous year, a general rate of 9½ per cent., and water, lighting, and sewage rates aggregating 10 per cent., besides taxes on animals and vehicles and on trades and professions, &c. Collection of the rate continued to show marked improvement, the ratio of collections to the corrected demand being 99·4 per cent. The incidence of the net receipts from consolidated rates per head of the population was about Rs. 5⅔; and including other taxes, the total incidence of taxation was about Rs. 6⅔ per head. The total assessed valuation of the city rose to £1,786,800, which shows a record increase of £90,400 as compared with the previous year. The Government have now prescribed a procedure with regard to the raising of loans by the Corporation, which will ensure the proper consideration of the schemes proposed for each approaching year. The Calcutta improvement scheme, which has been approved in principle by the Secretary of State, will, when it has been started, necessitate the raising of large sums in the market by the Calcutta Improvement Trust which it is proposed to constitute for the purpose. The indebtedness of the Corporation stood at £2,428,700 at the beginning of the year, which is well within the legal limit.

Interior of Bengal.

The municipalities in the interior of Bengal numbered 161, as in the previous year. The incomes of the municipalities, including debt heads, amounted to £385,100, of which about £245,000 came from taxation. The taxes are levied on persons, according to their circumstances and property, on holdings, at a rate generally 7½ per cent. of the assessed annual value, besides lighting and water rates and other smaller items; there are no octroi duties; the water rate was levied in 14 towns. The total expenditure of the funds, including debt heads, was £386,200, or excluding those heads, £322,300, of which £21,000 was for water supply, £13,400 for drainage, £90,700 for conservancy, and £33,700 for hospitals and dispensaries. The closing balances amounted to £61,700. Thirty-nine municipalities were in debt to the Government to a net amount of £221,200, more than half of this being owed by the Howrah municipality. The report on this important municipality is a satisfactory one.

United Provinces.

Fifteen of the smaller towns in the United Provinces were reduced during the year to the status of notified areas. The remainder, 89 in number, include all that are of any importance; and they alone are included in the figures given below. Octroi duties were levied in 76 towns; the revision of octroi schedules was continued, and 15 of them were entirely recast during the year, and upwards of 20 modified. The receipts of the municipalities, excluding loans, amounted to £434,000, compared with £383,000 for the same 89 towns in 1903–04. The increase was partly due to larger grants from the Government, but also to receipts from taxation, which rose to

MUNICIPALITIES.

£297,400. Of the taxation revenue, octroi duties accounted for £214,000, compared with £203,000 in the preceding year. The incidence of taxation as a whole rose to Re. $1\frac{7}{16}$ per head of the population in municipal areas. The expenditure also showed an increase, amounting to £436,900, compared with £405,500 in the same towns in the preceding year. The burden of the plague was even heavier than in the previous year. The expenditure included £179,000 spent on water supply, drainage and conservancy—11 per cent. more than in 1903–04—and £36,400 on police, £17,700 on public instruction, and £47,300 on roads and buildings. Loans to the amount of £24,500 were received from Government during the year, the heaviest borrowers being Agra and Cawnpore. The closing balances at the credit of the boards amounted to £141,400, showing a considerable increase owing to the Lucknow board having still in hand a large part of the grant of £20,000 made by the Government during the year for their drainage project.

Punjab.

There were in the Punjab 139 municipalities, besides 49 notified areas, which have a modified form of municipal government. Elected members serve on 107 of the municipal committees, the proportion being generally two elected to one nominated member. The total income of the municipalities and notified areas, excluding loans and extraordinary receipts, was £344,200, of which £219,900 was raised by octroi duties, in force in 143 towns. There seems reason to believe that the rules laid down for the prevention of the taxation of through trade have in some cases not completely effected their object, and orders have been issued for the early submission of revised octroi schedules throughout the province. The average incidence of taxation was Re. $1\frac{7}{16}$ per head of the municipal population. The receipts under "extraordinary and debt" amounted to £27,000, chiefly loans from Government. The expenditure was £366,700, including £17,400 for repayment of loans, &c., £38,300 for hospitals and dispensaries, £41,300 for education, £93,400 for water supply, drainage, and conservancy, and £34,300 for roads and buildings. The aggregate balances at credit of the municipalities at the end of the year amounted to £111,900, besides investments to the value of £27,600. The aggregate amount of loans outstanding was £343,500; but the financial condition of each indebted municipality is reported to have been satisfactory.

North-West Frontier Province.

In the Frontier Province there were 10 municipalities and two notified areas, with a total income of £37,600, expenditure amounting to £36,200 and closing balances amounting to £13,900.

BURMA.
Rangoon.

The revenue of the Rangoon municipality, excluding loans and advances, continued to increase, and amounted to £166,800, against £160,100 in 1903–04. Of the above total, direct taxation accounted for £102,800, falling at the rate of about Rs. 7 per head of the population. Loans aggregating £88,000 were raised in the open market at $4\frac{1}{2}$ per cent., on account of the new Hlawga water supply scheme, reclamation works, and other purposes. The expenditure was £250,000, apart from repayment of loans and advances; but excluding the large expenditure on loan works, the ordinary expenditure of the year was £168,100, as compared with £142,500 in the preceding year. Of this total, £28,600 was spent on conservancy, £25,000 on maintenance of drainage and water supply, £29,300 on roads and buildings, and £6,800 on public instruction. The debt of the municipality at the end of the year was £712,400, of which £120,000 is on account of the reclamation works; the net addition to the debt during the year was £84,200. In view of the demands which are about to be made on the funds of this rapidly growing town, for improvement of the sewerage, surface drainage, and water supply, it is satisfactory to note that the Lieutenant-Governor is of opinion that the municipal funds are well able to bear the burden which these will entail.

Interior of Burma.

The number of other municipalities in Burma at the end of 1904–05 was 40, of which eight were administered under the Upper Burma Municipal Regulation of 1887. Steps were taken during the year to extend the Burma Municipal Act to seven of these, so that Bhamo alone will remain under the

Regulation. Elected members were serving on eleven of the committees. The income of the municipalities, excluding debt heads, was £174,700, of which £71,900 came from taxation and ferry tolls, and £76,100 from markets and slaughter-houses. There are no octroi duties in Burma. The expenditure, excluding repayment of loans and advances, amounted to £199,600, the closing balances falling to an aggregate of £40,500. The expenditure shows a considerable fall, as compared with 1903–04, when larger outlay was incurred on the new bazaar at Mandalay and the Moulmein waterworks, out of loan funds. In the year under report hardly any new loans were raised, but some expenditure was incurred on the two objects mentioned. The total outstanding indebtedness of the municipalities at the end of the year was raised to £134,800. The municipal incomes are for the most part small, only eight, including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of municipal population was Re. $1\frac{5}{8}$, the highest rate being at Moulmein, where, however, there was a decline in the year, owing to a reduction in the water rate. MUNICIPALITIES.

In the Central Provinces 46 towns had municipal committees in 1904–05, and 12 in Berar, as in the preceding year. The question of extending the elective principle in Berar was under consideration, but before making any change it was decided to apply the new Central Provinces Municipal Act to Berar, and this measure was therefore under discussion. The municipal income of the two provinces, excluding loans and advances, amounted to £123,800, which, though apparently smaller than the previous year's figure, represents a larger income, as the 1903–04 figure included gross octroi receipts, while in the present case refunds of octroi duty have been deducted. Of this total £50,400 was raised by octroi duties, which were levied in 24 towns in the Central Provinces. The incidence of taxation per head of the municipal population was 23 annas. The incidence is lower in Berar than in the Central Provinces, and the municipalities there, although small, have in many cases large balances. On the whole, the position of all the municipalities is distinctly good, taxation being light and revenue expanding beyond expectations. The expenditure was £109,500, excluding advances and repayment of loans; this sum included £24,900 for upkeep of water supply and drainage, and for conservancy, and £14,300 for education. Nagpur and Jubbulpore each received a loan from Government during the year. The balance at the credit of the municipalities at the end of the year was £47,900, compared with £46,400 at the beginning. Central Provinces and Berar.

The number of areas under municipal law in Assam, including two stations and three unions, remained at 14, but only three of them have a population of more than 10,000. The income, excluding deposits and advances amounted to £16,800, and the expenditure to £15,600, of which £7,500 was spent on water supply, drainage and conservancy, including a small amount of capital expenditure. The closing balances rose to £4,900. The Chief Commissioner reports that municipal administration has been improving in the province, more attention being paid to conservancy, upkeep of roads, and sometimes the appearance of the town. Assam.

A new Municipal Act came into force during the year in Madras city. The two most important changes concern the constitution of the Corporation and the provision for increase of taxation. The number of commissioners is raised from 32 to 36, besides the chairman, of whom 20 are to be elected and the remainder to be appointed by Government and by various bodies connected with trade and commerce. The water tax was converted into a water and drainage tax, to be levied at a rate not exceeding $6\frac{1}{2}$ per cent., or $2\frac{1}{2}$ per cent. more than the maximum under the old Act. Also appropriate and much needed new building regulations were brought into force. The income of the year, excluding loans and advances, amounted to £111,500, of which £76,600 came from taxation and £26,500 from municipal property and powers apart from taxation, these two items showing a steady increase as compared with 1903–04. Taxation fell on the population at the rate of Rs. $2\frac{1}{5}$ per head; the principal tax is one of 10 per cent. on buildings and lands, and there is also a water tax at 4 per cent. (changed to $6\frac{1}{2}$ per cent for the future, as stated above), and a lighting tax at $1\frac{1}{4}$ per MADRAS. Madras City.

MUNICIPALITIES.

cent., besides a tax on professions and trades, and taxes and tolls on animals and vehicles; there are no octroi duties. No fresh loan was raised during the year. The expenditure came to £149,900, of which £42,000 was spent on new works, and chiefly on drainage, for which a loan was raised in 1903, £39,500 on maintenance of the existing water supply and drainage works, and £22,400 on conservancy. The outstanding debt of the municipality amounted on the 31st March 1905 to £402,700, against which must be set the sinking funds, amounting to £122,900.

Interior of Madras.

The number of municipalities in the interior of Madras was 60, of which 58 contained elected members, two towns having exercised for the first time the privilege of election. The right of electing the chairman was enjoyed by 36 towns. The total income of the municipalities, excluding debt heads, was £238,800, of which £136,700 was drawn from taxation and tolls. There was a good increase in the receipts from taxes, which included the tax on buildings and lands and the water and drainage tax, the tax on arts and professions, and on vehicles, animals, and carts, and a tax on servants in some hill stations. The average incidence of taxes and tolls continued to rise, and was rather over 17 annas per head of the municipal population; there are no octroi duties in these towns. The expenditure was £237,800, of which £74,800, or £7,800 more than in the previous year, was spent on public works. The outstanding debts at the end of the year amounted to £145,500, against which there were sinking funds of £7,800, and closing balances amounting to £65,400. On the whole, the Government report that there was an advance in the administration of municipal affairs during the year.

BOMBAY.

Bombay City.

The municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The revenue realised was £622,500, or £56,900 more than in 1903–04, and higher than any previously recorded figure for the municipal income. Various causes, including increased receipts from octroi duties, development of the property tax assessment, and greater promptitude in collection, contributed to this result. It is estimated that about £20,000 of this represents a permanent increase in the municipal income. There were no changes in the rates of taxation. The general tax, at the rate of 10 per cent., yielded about one-third of the income, octroi duties more than one-seventh, and water revenue nearly one-fifth. The expenditure was £572,800, including a contribution of £13,300 to the Improvement Trust, £188,900 for debt services, £38,700 for maintenance of drainage and waterworks, and £94,900 for conservancy. The balance at the end of the year was £160,100, compared with £6,700 required by law, and although certain liabilities have to be set against this, it is claimed by the Standing Committee that the financial position of the municipality has substantially improved. The incidence of taxation works out at Rs. 10½ approximately per head, taking the population of the 1901 census as a basis; but the population has probably increased since then.

A loan for £85,000 was raised from the public for the construction of water works; the outstanding debt at the end of the year was £3,241,000, the sinking fund amounting to £354,800. The expenditure from loan funds during the year increased from £43,000 to £61,400, in spite of the plague charges (£12,100) having been met from revenue. The loan expenditure included £45,200 spent on sewerage and drainage works and £9,600 spent on water works. The plague expenditure since the commencement of the epidemic amounted to £409,700 at the end of March 1905, of which £96,700 was received from the Government, and the remainder met partly by special plague loans, partly out of other loan funds, and, in the year under report for the first time, out of the revenues of the municipality.

Most satisfactory progress was made with the work of the Bombay City Improvement Trust during the year; 383 properties were acquired at a cost of £346,300, the total thus spent up to the end of the year being £949,000. Five-sixths of the cases of acquisition of property for the various schemes had, by the end of 1904–05, been disposed of, one-third of these having been amicably settled. Only 238 cases remained, including a number of unsettled appeal cases, in respect of the schemes hitherto sanctioned.

MUNICIPALITIES.

The provision of housing accommodation for the dispossessed population was proceeding steadily, care being taken to interfere as little as need be with private enterprise in this direction. A loan for £333,000 at 4 per cent. was raised at an average rate of rather more than par. The year's revenue of the Trust amounted to £74,800, and the expenditure, exclusive of capital charges, to £70,200. The revenue consisted of the municipal contribution of £13,300 mentioned above, and other receipts from investments, rents, and other proceeds of property. The capital expenditure during the year amounted to £434,500, bringing the grand total to the end of 1904–05 up to £1,230,500.

Interior of Bombay.

The municipalities in the interior of Bombay numbered 163, including one which was abolished before the end of the year. Their aggregate income was £456,700, excluding loans and advances; but this sum includes £85,600 received from octroi duty which had to be refunded, so the net total may be given as £371,100. Of this, the net receipts from octroi duty account for £133,700, and other taxes for £137,600, the general incidence of all the taxes per head of the municipal population standing at nearly Re. $1\frac{3}{4}$, and varying from Rs. $6\frac{1}{8}$ in Karachi downwards. A slight improvement in the working of the octroi system was noted, and it was hoped that more satisfactory results would be shown when the model rules which were under the consideration of the Government were brought into operation. The receipts showed a general increase throughout the Presidency proper, and especially in Sind. The revenue from municipal property and powers apart from taxation also increased in most parts of the Presidency, rising to £58,100. The expenditure, also excluding loan heads, and taking no account of refunds, which may be ruled out of both sides of the account, increased by £37,400, owing to larger expenditure on plague and water supply, and stood at £366,800. The indebtedness of the municipalities amounted at the end of the year to £321,400. Expenditure on sinking funds and the repayment of debt during the year amounted to £23,100, and the amount of the loans received was £58,092, the chief items being Poona's plague loan from Government, and two loans raised in the open market by Ahmedabad and Karachi respectively. The closing balances at credit of the municipal funds rose to £163,700.

## DISTRICT BOARDS.

DISTRICT BOARDS.

General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; in most provinces district committees had, for many years, given assistance or exercised control in the administration of local roads, local hospitals, and local schools, but before 1870 there was no organised attempt to introduce rural self-government. The present system is based on the principles laid down by the Government of Lord Ripon, in 1882. In all the more advanced provinces district boards are constituted under different enactments. The funds of the boards are supplied for the most part from the yield of specific imposts, known as provincial rates, made over to them in whole or in part by the local governments. They have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. But the part of the district funds which admits of an extension of the general usefulness of the boards is that accruing from provincial rates. Though it does not properly come within the period with which we are dealing, mention may be made of the decision of the Government of India, announced in the Budget Statement for 1905–06, to make a grant-in-aid of the funds of all district and local boards throughout India, equal approximately to one-fourth of their income from rates or cesses imposed upon the land. The estimated present cost of this measure was about £377,000, an amount which will, of course, grow as the income from cesses increases. In most provinces the district boards delegate much of their detailed work to sub-divisional or "local" boards, which are constituted under the law, and are responsible for sub-divisions or parts of a district. The local boards contain a proportion of elected members, varying from three-quarters to a half of the whole number, in all provinces excepting

DISTRICT BOARDS.

Madras, where the elective system is only applied to members of district boards. The latter are in all provinces generally chosen, either by election or appointment, from the ranks of the local board members. The following table shows the general constitution of the boards in each province, the figures in italics relating to the local boards:—

| | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex Officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Native. |
| Madras - | 21 | 635 | 103 | 233 | 299 | 251 | 384 | 136 | 499 |
| | *80** | *1,147* | *80* | *1,067* | *—* | *341* | *806* | *101* | *1,046* |
| Bombay - | 24 | 530 | 5 | 289 | 236 | 134 | 396 | 71 | 459 |
| | *210* | *3,077* | *37* | *1,668* | *1,372* | *628* | *2,449* | *137* | *2,940* |
| Bengal - | 42 | 844 | 220 | 295 | 329 | 279 | 565 | 222 | 622 |
| | *104* | *1,248* | *66* | *819* | *363* | *172* | *1,076* | *115* | *1,133* |
| United Provinces. | 48 | 934 | 270 | 54 | 610 | 280 | 654 | 97 | 837 |
| Punjab - - | 28 | 1,089 | 216 | 497 | 376 | 247 | 842 | 74 | 1,015 |
| | *28* | *532* | *31* | *159* | *342* | *30* | *502* | *3* | *529* |
| N.-W. Frontier Province. | 5 | 216 | 49 | 167 | — | 49 | 167 | 27 | 189 |
| Central Provinces and Berar. | 23 | 482 | 8 | 109 | 365 | 79 | 403 | 22 | 460 |
| | *76* | *1,271* | *26* | *319* | *926* | *129* | *1,142* | *6* | *1,265* |
| Assam - - | *19* | *357* | *62* | *162* | *133* | *72* | *285* | *133* | *224* |

* Besides 379 union panchayats, with 3,537 members.

Bengal.

In Bengal there were 42 district boards as in the previous year, and 104 local boards, the latter having charge of village roads and various duties deputed to them in respect of pounds, ferries, primary education, and other matters; and there were also 58 union committees entrusted with minor duties and petty incomes. No progress was made during the year with the Bill to amend the Local Self Government Act, owing to the fresh amendments which had been proposed, and which required formal sanction. It is proposed to provide for the imposition of a cess when required to meet the charges of debt raised for tramways and light railways, to improve the position of the union committees, and other matters. Four light railways constructed under the guarantee of district boards are now in existence in Bengal, and other schemes are in contemplation. The income of the district boards, apart from the head of deposits and advances, fell from £525,500 to £497,800, owing to the temporary withdrawal of the Government subvention of £33,000, given annually since 1901–02 for civil works. The figures include £307,200 from the road cess. The expenditure, also excluding deposits and advances, was £504,500, of which £121,800 was spent on education and £311,800 on civil works, chiefly roads. The closing balances, exclusive of deposits, amounted to £148,200, which was in excess of their amount at the end of the preceding year. The grant sanctioned for the future by the Government of India will enable the boards to undertake the medical, sanitary, and veterinary work which, owing to the limitations of their income, have received hitherto too little attention.

United Provinces.

There were, as in the previous year, 44 district boards and four district committees in the United Provinces. The income of the boards and committees during 1904–05 was £420,400, excluding deposits and advances; of this amount, £218,300 came from provincial rates, and £81,000 was contributed by the local Government. The ordinary receipts, apart from contributions, showed a satisfactory increase under every head with the single exception of civil works, which were reduced by lower receipts from ferries. The expenditure amounted to £432,100, of which £125,500 was spent on education with satisfactory results, £48,700 on the equipment and

maintenance of hospitals and dispensaries, and £218,700 on civil works, chiefly roads and bridges. The last item was swollen by expenditure on the cleansing of towns and villages, out of the special grant made by the Government for that purpose. This was the last of a series of years in which the boards have suffered from a lack of funds. From the current year large additions to their funds have been made, and legislation and financial changes under consideration are designed to give them a clearer knowledge of their income and greater control of it. There was a considerable reduction in the amount of the accumulated balances, which stood at £79,100 at the end of the year, but they were still far in advance of the prescribed minimum balance. DISTRICT BOARDS.

The number of district boards in the Punjab was increased by one, to 28, and including the Simla board, the powers of which are exercised by the Deputy Commissioner. The local boards numbered 28 also, as in the preceding year. Local boards have been found to be useless in many parts of the province, and have been abolished, though no such changes were made during the year; they only exist at present in seven districts. The district boards in 11 districts are composed entirely of nominated or ex-officio members. Sub-committees have been established in most districts, with the object of interesting members in special departments of work, but at present they deal chiefly with questions of finance only. The year's income of the district boards, apart from loans and advances, came to £223,900, of which the chief items were £169,400 from local rates, agricultural conditions having been good, and £26,500 from civil works. The expenditure of the year was £212,100, of which the chief items were education, £47,400, medical and sanitary charges, £24,900; and roads and other public works, £68,600. This latter item was swollen by heavy expenditure on roads in the new Lyallpur district, and by other exceptional items. The closing balances of the district funds taken together amounted to £85,000, compared with £72,000 at the end of 1903–04. Punjab.

In the Central Provinces and Berar, district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 23 and 76 respectively. The powers of the local boards are small, and the business they have to transact is rarely enough to occupy them for many meetings. But the administration of local affairs as a whole is considered to have been satisfactory, though this result was attained to a very large extent through official action, the work of the boards generally being regarded by the people too much as a branch of Government administration. The income of the district funds amounted to £127,000 (of which £71,000 belonged to the Central Provinces boards) excluding debt heads, while the expenditure, also excluding repayment of loans, &c., was £119,600 (of which £69,600 in the Central Provinces). The Berar district boards, six in number, have a much larger share, proportionately, than those of the Central Provinces in the above amounts, and the average incidence of "local" taxation per head of the population is three-quarters of an anna only in the Central Provinces, against $2\frac{5}{6}$ annas in Berar. The latter boards have, therefore, more scope for the display of activity in local administration than those of the Central Provinces. The chief source of income, as in other provinces, is the provincial rates, but receipts from cattle pounds constitute a much higher proportion of the total in the Central Provinces than elsewhere. The abolition of the pandhri tax in the Central Provinces and of the town fund tax in Berar tended to decrease the receipts; but the deficiency was made good in Berar for the year by a grant from Government funds. The expenditure included £40,600 on education and £35,600 on public works. The total balances amounted to £86,900, of which no less than £66,200, or more than a year's revenue, was held by the Berar boards; this large accumulated balance is regarded as an unsatisfactory feature, and the six district boards of Berar, which have been converted into four since the conclusion of the year, have each an unnecessarily large surplus, which they are being urged to expend on needed improvements. Central Provinces.

In Assam there were 19 local boards, constituted under a Regulation of 1879, modified by executive rules. A special feature of their constitution is the presence of a large proportion of Europeans among their members, Assam.

DISTRICT BOARDS.

representing the planting community. A manual was issued during the year embodying the various reforms which have recently been introduced, including the measures introduced to secure that some of the Native members should represent the rural interests of their subdivisions. The income of the boards, apart from debt heads, was £88,700; their expenditure amounted to £81,000, of which about 50 per cent. was devoted to public works, and 31 per cent. to education. The closing balances amounted to £36,800.

Madras.

In Madras there were 21 district boards and 80 taluk boards, and the number of village unions was 380. The taluk or subdivisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents. The village union *panchayats* or councils have each not less than five members; they deal chiefly with local sanitation, though in some cases they have the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The income of the boards and unions, excluding debt heads and contributions from one district board to another, fell from £676,000 to £673,700. The chief item is the land cess, levied at rates varying from one to two annas per rupee of the land revenue assessment, which yielded £29,600 more than in the previous year. The above figure includes also grants from provincial revenues amounting to £50,300, chiefly for education and public works. The expenditure of the boards, also excluding the heads mentioned above, amounted to £702,700, or 5 per cent. more than in 1903–04. The chief items of expenditure were £303,400 on public works, £141,600 on medical institutions and sanitation, including £45,000 on plague, and £92,900 on education. About one-half of the expenditure is controlled by the taluk boards. The Mayaveram-Mutupet Railway, which belongs to the Tanjore District Board, brought in a net profit of 5·5 per cent. on the capital outlay.

Bombay.

In Bombay and Sind there were 24 district and 210 taluk (or subdivisional) boards, nearly all of which are partly elective. The income of the local boards, excluding debt heads, was £292,900, compared with £319,900 in the previous year, the fall being due almost entirely to the remission or suspension of local cesses owing to the unfavourable character of the agricultural season and ravages of locusts. The amount contributed by the local government was greater than in 1903–04, owing to large grants for educational purposes, the limit of aid to be given by the Government to local boards on account of primary education having been raised from one-third to one-half of the boards' expenditure. The expenditure of the boards, also excluding debt heads, was £312,300, including £111,700 on education, and £157,000 on roads, buildings, and water supply, compared with £149,300 in 1903–04. The actual balances at credit of the boards, which owing to the disorganisation by famine and plague were reduced at the end of the year 1900–01 to £75,700, stood at £122,900 at the end of 1904–05, though this was much below the closing balance of the previous year. The general financial condition of the boards is reported to be quite sound. The year was uneventful, and though not unprosperous was nowhere marked by unusual activity in any branch of local administration.

Burma.

There are no local boards in Burma. Their place is taken by the district funds under the control of Government officers. These numbered 36, and had an income of £186,300 and an expenditure of £185,100 in the year under report. Those in Lower Burma, known as "District Cess Funds" are the largest as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £154,700 of the expenditure, of which £16,900 was on education and £73,100 on public works.

## PORT TRUSTS.

PORT TRUSTS.

The custody of the harbours and the administration of harbour and shore affairs in the more important ports are placed by various legislative acts in the hands of Port Commissioners. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and

to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts receive a small fee for each attendance at meetings for business. PORT TRUSTS.

The trade of Bombay port in 1904–05 showed an increase under almost all the principal heads of imports, and under exports the only important falling off, as compared with 1903–04, was in raw cotton. The net result to the Bombay Port Trust was a rise in their income to £443,800, a record figure. The receipts for wharfage fees and dock dues were £208,100, the other principle items being ground and warehouse rents, which yielded £106,800. The expenditure amounted to £394,100, including £182,400 for interest and sinking fund charges, £38,900 for the working and maintenance of the bundar properties, and £103,600 for that of the Prince's and Victoria Docks. These docks, on which rather more than 1½ millions sterling had been spent up to the end of the year, yielded in 1904–05 a net return of £107,500. The number of square-rigged vessels entering the port rose to 2,470, of more than three million tons register, of which 1,518, of more than 2½ million tons, paid dock dues. A four per cent. debenture loan, aggregating £243,300, was raised in August 1904, of which £133,300 was the first instalment of a loan sanctioned for the construction of new docks, the remainder for other important capital expenditure. The debt of the Trust amounted at the end of the year to £4,076,700, of which about two millions is owed to Government, and the remainder consists of foreshore securities and debenture loans. The cost price of the properties vested in the Board was £4,148,800, and various depreciation, reserve, and sinking funds amounted in the aggregate to £517,700. Work was begun on the construction of the new docks during the year. According to the revised designs, the total length of quays provided will be 16,035 feet, or a little more than 3 miles, of which 10,000 feet will be inside the dock, with a depth of 36 feet at ordinary neap tides, the remainder along the harbour walls, having for the most part a minimum depth, at ordinary spring tides, of 28 feet. Bombay.

The receipts of the Calcutta Port Trust amounted to £592,000, which is more than 11 per cent. higher than the figures for the preceding year, and the highest on record; the expenditure was £548,800, including the Kidderpore Dock Account and payments for interest and sinking funds. The surplus of £42,600 brought up the accumulated balances to £191,100, out of which a sum of £168,100 has been set aside as a Revenue Reserve Fund. Having regard to this position, the Commissioners further reduced the charges on trade and shipping in 1904–05 by an amount of £8,000, which, added to previous concessions, makes a total reduction of £34,900 in the annual charges since July 1902. The jetties yielded a net revenue of £39,000, and the petroleum wharf £15,200. The receipts from the Kidderpore wet docks were £197,900, there having been an increase under practically all heads, owing to the much greater tonnage of exports handled, especially of coal, wheat, and seeds; the working expenses were £187,600, showing a net profit, apart from interest charges, though not quite so large a profit as in the previous year. The total capital expenditure at the docks amounts to about 2½ million pounds, and the net income is not yet nearly sufficient to pay for interest and sinking fund charges. The sum expended during the year on capital works was £204,500, which was met partly by temporary advances from revenue funds and partly from overdrafts at the Bank of Bengal, no debenture loan having been raised during the year. The outstanding debt of the port, including the dock loans, amounted at the end of the year to £3,320,700, of which £2,124,800 was due to the Government and the remainder to debenture holders. Against this are to be set £314,000 at credit of sinking funds, and value of properties nearly 4½ million pounds, besides the valuable Strand Bank and Howrah foreshore lands. The number and tonnage of vessels berthed in the port in recent years are shown in the margin. In both respects the statistics for the year are well above any previously recorded. Calcutta.

| Year. | No. | Net Tonnage. |
|---|---|---|
| 1898–99 | 1,203 | 2,350,900 |
| 1899–1900 | 1,179 | 2,425,800 |
| 1900–01 | 1,412 | 2,939,500 |
| 1901–02 | 1,347 | 2,937,300 |
| 1902–03 | 1,309 | 2,884,600 |
| 1903–04 | 1,368 | 3,135,400 |
| 1904–05 | 1,515 | 3,571,300 |

PORT TRUSTS.

Rangoon.

The ordinary receipts of the port of Rangoon were £146,700 in the year 1904–05, and the expenditure £85,700. If the debt accounts be included, the total receipts were £159,300, and the gross expenditure was £109,500, the closing balance being increased to £104,300. These figures are much in advance of previous records, partly owing to the receipt of £16,400 arrears from the Irrawaddy Flotilla Company, but also due largely to increased trade, resulting in an increase in the revenue derived from the Strand Bank properties. The total import trade of the port was higher than in 1903–04 or any previous year. The net tonnage of sea-going vessels entering the port was 2,356,800 tons, against 2,061,000 tons in 1903–04, and consisted almost entirely of steamers, the number of which was 1,295; 375 steamers of tonnage exceeding 4,000 tons entered the port, compared with 273 in the preceding year, and only 43 ten years ago. The scheme for the new port works was approved by the Local Government early in 1902; the whole scheme was estimated to cost about £617,000, to be raised by public loans. A loan for £67,000 at 4½ per cent. was floated at a premium, and good progress was made with various parts of the scheme. The total indebtedness of the Commission by the end of the year was £209,600. The financial position of the Port Fund is very good, and it is reported by the Commissioners after inquiry that the money required for interest and sinking funds for the amount to be raised for the improvements can be available from revenue without the imposition of additional taxation. A new Port Act, giving the Commissioners the powers needed for the administration of the port, was passed during the year, and came into operation in July 1905.

Madras.

The ordinary expenditure of the Madras Harbour Trust in the year 1904–05 was £36,700, and its receipts were £66,400, including a special payment of £14,000 from port funds. A review of past and present earnings of the Trust shows that in the last eighteen years debt has been repaid to the amount of £161,900, while £68,600 has been paid out of revenue for capital works. The debt standing in the books is £270,000. The capital works of which the Trust have charge originally cost £1,051,200, and their present value is stated as £826,500. These figures are of special interest in view of the large expenditure which was about to be undertaken in making a new entrance to the harbour and additional accommodation. For this purpose the Government had agreed to furnish £133,300, and to advance the balance of £173,300 estimated to be required—or up to £266,700 if that is needed—at four per cent. interest, this and the existing debt to be paid off together in sixty equated payments. It is stated that the affairs of the Trust have improved so that there is little if any risk of the necessity of enhancing the harbour dues arising in consequence of the new capital expenditure. The sum spent on the scheme during the year was £37,200. There was a further increase in the steam tonnage entering the port, to 1,428,200 tons. The import trade of the year was good, but exports were scarcely above the average. A new Madras Port Trust Act, which had long been wanted in consequence of the difficulties which had arisen under the old one, was passed at the end of the year.

Karachi.

The great development of the wheat export trade at Karachi in the year 1904, with other increases under both export and import heads, following on the recent growth of the trade of the port, have placed the Port Trust in a good financial position, and have brought forward prominently the need for improved resources at the port to meet the demands of traffic. The number of steamers entering the port was 859, with an average tonnage of 1,744 tons, against 694, with an average of 1,595 tons, in 1903–04. The total income from revenue sources rose from £130,400 to £196,800, and showed an excess over the expenditure of £83,200. The net revenue from piers and wharves was £81,600, the gross tonnage of imports and exports passing over them having been 2⅛ million tons, against 1¼ million in 1903–04. A sum of £35,800 was spent on capital works chiefly from loan funds. The total liabilities of the Trust at the end of the year stood at £440,400, having been increased by a loan of £66,600 during the year. The character of the improvements which require to be made, in order to enable the port to cope with the present and any future increase of traffic, was under the consideration of a committee at the end of the year. The committee subsequently submitted a report, and the scheme recommended by them was being reviewed by the Trustees.

There are other minor ports at which smaller sums are raised yearly and expended on improvements, but these do not require notice.

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1904-05.

| | Bengal. | | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces and Berar. | Assam. | Madras. | | Bombay. | | Minor Provinces. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Presidency Corporation. | District Municipalities. | | | | | | | Presidency Corporation. | District Municipalities. | Presidency Corporation. | District Municipalities. | | |
| Number of Municipalities and Notified Areas | 1 | 161 | 104 | 188 | 12 | 41 | 58 | 14 | 1 | 60 | 1 | 163 | 9 | 813 |
| Population within municipal limits | 847,796 | 2,871,249 | 3,221,658 | 2,299,231 | 190,779 | 886,074 | 883,579 | 94,982 | 509,346 | 1,907,102 | 776,006 | 2,367,418 | 127,425 | 16,982,649 |
| Receipts: | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Octroi | — | — | 213,978 | 219,938 | 26,725 | 173 | 50,427 | — | — | — | 121,659 | 218,984 | 26,496 | 878,380 |
| Other Taxation | 374,927 | 244,396 | 83,424 | 25,007 | 430 | 174,603 | 34,001 | 8,786 | 76,565 | 136,736 | 417,563 | 136,823 | 2,572 | 1,715,833 |
| Revenue sources other than Taxation | 101,690 | 74,517 | 136,570 | 99,226 | 10,476 | 176,240 | 39,334 | 8,009 | 36,346 | 102,108 | 83,185 | 98,500 | 9,883 | 976,084 |
| Extraordinary and Debt | 333,346 | 60,240 | 29,707 | 27,007 | 4 | 130,789 | 15,941 | 48 | 30,769 | 47,183 | 1,856,171 | 106,526 | 2,860 | 2,646,591 |
| Total (1904-05) £ | 809,963 | 385,153 | 463,679 | 371,178 | 37,635 | 481,805 | 139,703 | 16,843 | 143,680 | 286,027 | 2,478,578 | 560,833 | 41,811 | 6,216,888 |
| Corresponding Total (1903-04) £ | 853,078 | 366,546 | 478,971 | 375,017 | 34,021 | 589,510 | 147,448 | 17,730 | 197,354 | 266,196 | 2,766,885 | 472,137 | 38,162 | 6,603,055 |
| Expenditure: | | | | | | | | | | | | | | |
| Cost of Collection and Administration | 51,927 | 29,823 | 49,888 | 53,618 | 3,716 | 32,037 | 15,089 | 1,211 | 7,629 | 19,319 | 42,436 | 123,401 | 7,922 | 438,016 |
| Public Health and Convenience | 311,462 | 232,901 | 251,906 | 178,352 | 18,816 | 340,190 | 69,160 | 12,588 | 113,281 | 163,944 | 299,320 | 197,687 | 12,458 | 2,202,065 |
| Public Safety | 43,312 | 25,390 | 49,457 | 48,729 | 6,166 | 22,384 | 2,969 | 674 | 5,550 | 8,703 | 59,655 | 18,293 | 3,428 | 294,710 |
| Public Instruction | 1,413 | 10,159 | 17,712 | 41,350 | 3,944 | 27,454 | 14,251 | 681 | 917 | 26,591 | 10,651 | 61,164 | 2,075 | 218,362 |
| Interest and Miscellaneous | 126,007 | 24,047 | 67,978 | 27,240 | 3,578 | 38,573 | 8,062 | 503 | 23,665 | 19,200 | 170,308 | 50,082 | 6,799 | 566,042 |
| Extraordinary and Debt | 202,030 | 63,903 | 17,565 | 17,384 | 96 | 59,684 | 25,821 | 246 | 28,177 | 30,384 | 1,903,001 | 66,096 | 2,887 | 2,417,274 |
| Total (1904-05) £ | 736,151 | 386,223 | 454,506 | 366,673 | 36,316 | 520,322 | 135,352 | 15,903 | 179,219 | 268,141 | 2,485,371 | 516,723 | 35,569 | 6,136,469 |
| Corresponding Total (1903-04) £ | 774,824 | 359,060 | 454,319 | 366,557 | 37,036 | 654,237 | 136,378 | 17,399 | 161,553 | 254,153 | 2,762,827 | 452,189 | 35,315 | 6,465,852 |

# CHAPTER IIA.

## VITAL STATISTICS AND SANITATION.

*(Detailed information on the subjects treated in this chapter is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper; and a brief review only is given in this place.)*

VITAL STATISTICS. European troops.

### VITAL STATISTICS.

The health of the European troops in India in 1904 was generally much better than in former years, the rates of admission to hospital and of deaths being the lowest on record, though the former fact was counterbalanced by an increased amount of invaliding home. The admission rate, the constantly sick rate, and the death-rate, were all lower than in 1903. The following table gives details :—

| Year. | Average Strength. | Ratio per Mille of Strength. | | | |
|---|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths. | Invaliding. |
| 1891-1900 (ten years' average) - | 68,224 | 1,399 | 87 | 16·21 | 29 |
| 1903 - - - - - | 70,445 | 1,033 | 63 | 13·05 | 29 |
| 1904 - - - - - | 71,083 | 900 | 57 | 10·83 | 35 |

The chief causes of sickness were, as usual, venereal diseases and ague, which, though less common than usual, accounted for 22·1 and 19·3 per cent., respectively, of the total number of admissions, that is to say, 174 and 198, respectively, per mille on the strength, compared with 247 and 243 per mille in the previous year. The rate of admissions for venereal diseases had stood at 486 per mille in 1897. It is suggested, however, that some part of the decline shown by these figures may be due to changes as to record and diagnosis. The most notable increases were under the heads of simple continued fever, influenza, hepatic affections, and respiratory diseases, excluding pneumonia. Enteric fever and hepatic abscess were the chief causes of mortality, showing a death-rate of 3·76 and 1·36 per mille respectively. Enteric fever alone caused nearly 35 per cent. of the total deaths, 1,395 admissions and 267 deaths being due to this disease; but though the number of cases of enteric fever admitted to hospital was approximately the same as in 1903, the number of recoveries was greater. There was a decline in the death-rate from nearly all the other diseases. The loss by invaliding during 1904 amounted to 2,507 men, equal to 35 per mille of strength, against 2,052, or 29 per mille, in 1903, and 37 per mille in 1902. There was a notable increase, to 223, in the number of men sent home on account of tubercle of the lungs.

Native troops.

The health of the Native troops in 1904 was exceptionally good, for the admission, the constantly sick rate, and the death-rate, were the lowest on record. The details are given below :—

| Year. | Average Strength. | Ratio per Mille of Strength. | | |
|---|---|---|---|---|
| | | Admissions into Hospital. | Constantly Sick. | Deaths (including deaths during absence). |
| 1891-1900 (ten years' average) - - - | 127,666 | 852 | 32 | 16·62 |
| 1903 - - - - - - | 124,660 | 662 | 25 | 13·97 |
| 1904 - - - - - - | 124,055 | 603 | 24 | 12·08 |

Vital Statistics.

The reduction in the rates is due to a diminution in the number of admissions and deaths on account of all the chief causes of sickness and mortality. As usual, the Native soldier suffered less than the European from small-pox, enteric fever, simple continued fever, diarrhœa, hepatic affections, and venereal diseases, and more from fevers, lung affections, and other diseases. Ague continued to rank first among the causes of admission, and accounted for 32 per cent. of the total. Pneumonia, as usual, was the chief cause of death, 27 per cent. of the deaths being due to this disease; while remittent fever and tubercle of the lungs accounted for 8 and 6 per cent. respectively of the total mortality. The death-rate from enteric fever among the Native troops was only 0·13 per mille, as compared with 3·76 among the European troops. Despite the great spread of plague among the civil population, there was no corresponding increase among the Native troops; the number of cases was 187, with 111 deaths, or practically the same as in 1903. The number of men invalided for discharge was 1,610, the chief causes of this loss being, as usual, debility, tubercle of the lungs, ague, venereal disease, and rheumatism.

Jails.

The conditions of 1904 were favourable to the health of the prison population, and the statistics show a continued improvement. The death-rates per mille for all classes of prisoners were 35·96, 33·95, 30·63, and 29·97 in the last four quinquennial periods of the last century. For the four years 1901 to 1904, they were 26·87, 24·85, 21·38, and 17·61 per mille. The jail death-rate has fallen notably below the standard for the free population of the same ages. The ratio of admissions to hospital in the year 1904 was also the lowest on record, viz., 676 per mille, and the constantly sick rate stood at 28 per mille, the lowest hitherto recorded. The chief causes of admission to hospital were dysentery and diarrhœa, which between them accounted for 19 per cent. of the admissions, and ague, which was the cause of 32 per cent. The death-rate ranged from 12·5 per mille in the jails of the Central Provinces to 34·8 in the Andamans. The chief causes of death were tubercle of the lungs, dysentery, and pneumonia. There were only 24 deaths from plague, and there was very little cholera or small-pox. With the exceptions of the Andamans, Burma, and the Punjab all provinces show a reduced jail death-rate.

General population.

The provincial death-rates among the general population are given in the marginal table. It must be borne in mind, however, that the accuracy of the statistics is not yet very good, and that it varies in different parts of India. In every province, except the Punjab and the North-West Frontier Province, the actual number of deaths reported was smaller than in 1903, and in those two provinces the excess was not great. The mean death-rate for the whole of India was 32·86 per mille, compared with 34·7 in 1903.

DEATH RATES.

| | 1903. | | | 1904. | | |
|---|---|---|---|---|---|---|
| | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal | 33·2 | 36·4 | 33·3 | 32·3 | 34·8 | 32·4 |
| Assam | 26·6 | 26·2 | 26·5 | 25·8 | 25·8 | 25·8 |
| United Provinces | 39·2 | 54·9 | 40·3 | 33·6 | 49·1 | 34·7 |
| Punjab | 48·6 | 52·9 | 49·0 | 49·3 | 46·7 | 49·1 |
| North-West Frontier Province. | 28·0 | 32·8 | 28·4 | 28·6 | 29·0 | 28·6 |
| Central Provinces and Berar. | 32·4 | 64·6 | 35·5 | 30·6 | 45·1 | 32·1 |
| Madras | 21·5 | 27·3 | 22·2 | 21·7 | 28·1 | 22·5 |
| Coorg | 29·8 | 48·8 | 31·4 | 25·5 | 38·8 | 26·6 |
| Bombay | 41·5 | 59·9 | 43·9 | 39·3 | 55·2 | 41·4 |
| Burma { Lower | 23·0 | 32·3 | 24·1 | 21·2 | 30·0 | 22·4 |
| Burma { Upper | 19·8 | 39·2 | 21·8 | 17·3 | 31·1 | 18·7 |
| Ajmere-Merwara | 24·2 | 41·0 | 28·8 | 24·1 | 36·9 | 27·6 |

The decline was specially marked in respect of cholera deaths (·85 per mille, compared with 1·38 in the previous year), small-pox (·24 per mille, compared with ·41), and fevers (18·09 per mille, against 19·66). The number of deaths from bowel complaints also showed some diminution, the death-rate from this cause falling to 1·06 per mille. Plague deaths were much more numerous than in 1903; but plague forms the subject of a separate section at the end of the chapter. On the whole, apart from plague, the year 1904 was a very healthy one for all classes of people in India.

VITAL STATISTICS.

The mean birth-rate of the whole population under registration was 40·86 per mille, as compared with 38·96 in the preceding year. The provincial rates for the two years are given in the marginal table, which shows that the highest rates are those returned for the Central Provinces and the United Provinces, and the lowest that for Coorg, which is, however, only a small area. In six provinces the rate for 1904 was higher than that for the preceding year, and in no case was there any noteworthy falling off. The birth-rate considerably exceeded the death-rate in most provinces; but in the Punjab, where the plague death-rate was 19·7 per mille, the death-rate was 7·6 per mille higher than the birth-rate; and in Bombay, where the plague death-rate was 12·1 per mille, there was a similar excess of 6·3 per mille in deaths over births. The other exception was the small province of Coorg.

BIRTH RATES.

| — | 1903. | 1904. |
|---|---|---|
| Bengal | 39·0 | 42·6 |
| Assam | 35·6 | 35·5 |
| United Provinces | 46·1 | 46·7 |
| Punjab | 42·9 | 41·5 |
| North-West Frontier Province. | 31·6 | 34·9 |
| Central Provinces and Berar. | 45·1 | 53·2 |
| Madras | 31·2 | 30·7 |
| Coorg | 26·5 | 22·0 |
| Bombay | 31·2 | 35·1 |
| Burma { Lower | 33·5 | 32·7 |
| Burma { Upper | 37·5 | 35·0 |
| Ajmere-Merwara | 29·5 | 33·5 |

Vaccination.

The total number of vaccinations performed among the civil population during 1904–05 was 8,944,700, being an increase of 487,400 on the previous year's work. Of primary vaccinations 96 per cent. were successful, and 75 per cent. in the case of re-vaccinations, nearly 35 per mille of the population having been successfully vaccinated. The number of infants successfully vaccinated was 4,024,800, and of children between one and six years of age 3,312,400.

SANITATION.

## SANITATION.

Some of the important sanitary works which have been completed or were in progress, or under consideration, during 1904–05 were as follows:—

BENGAL.

In Calcutta the two chief works which the Corporation have in hand are

Calcutta.

the suburban drainage scheme and the continuous water supply scheme. The former, in spite of its name, includes a complete sewerage scheme for the town as well as the greater part of the suburbs, and also a huge storm water reservoir, intended to prevent the flooding of the streets, which has hitherto been a serious inconvenience. The works were in progress during the year. A drainage scheme for Balliaghatta has also been sanctioned. The work of converting the intermittent into a continuous filtered water system went on steadily, and the improved system had been extended over a portion of the city containing 300,000 inhabitants. A scheme was sanctioned by the Corporation to increase the water supply by six million gallons by erecting new pumps at Pulta, and the work was finished during the year. The average consumption of filtered water in the area under constant supply was 26·8 gallons per head. A scheme has also been proposed for improving the supply of unfiltered water, by enlarging the mains, &c. The birth-rate of the town is returned at 17·9 per mille, the death-rate as 30 per mille, including 5·5 per mille caused by the plague; probably many births escape registration, but a system of registration by peripatetic sub-registrars is being introduced as a temporary measure.

During recent years the Corporation have vigorously pursued the policy of mending or ending insanitary "bustees," or collections of huts, while at the same time they have opened out unhealthy areas by constructing a number of public squares and making new roads or widening old ones. But overcrowding, with its concomitant circumstances, is a great evil in the city. The scheme for the improvement of the city by means of a Trust, resembling in some respects that working in Bombay, had been for some time under consideration, and received the Secretary of State's approval towards the close of the year under report.

Interior of Bengal.

In eight municipalities of Bengal, other than Calcutta, there are complete waterwork installations. The chief is Howrah, where the water supply is most efficiently managed; the others have had greater difficulties, which have not in all cases been successfully met. In Darjeeling an additional spring had to be tapped, and in Bhagalpore a considerable additional expenditure on the works had to be sanctioned. Besides these eight towns,

there are several others which get a good water supply from waterworks under external control, or by means of filters. Drainage schemes had been or were being prepared for almost all the important municipalities. In Howrah some expenditure was incurred on the Sibpur section of the drainage scheme, and preliminary work was done in respect of the Burdwan and Serampore schemes, and at Narainganj. The actual expenditure on the construction of new works during the year was still small. Some attention was paid to village sanitation, and a few improvement schemes were in contemplation. An offer by the Government to make a contribution towards the cost of works for the improvement of village water supply resulted in some activity in this direction in many districts. SANITATION.

In the United Provinces there are waterworks in eight of the larger towns, and those at Agra were being extended in 1904. The others were worked with satisfactory results. There was a large scheme for extending waterworks and electric lighting to Mussoorie and Landour, but additional expert advice was required before starting work. Surface drain construction in Dehra Dun was well advanced, and a large scheme for surface drainage in Lucknow was also in progress of execution. Many other drainage projects were in hand. At Benares, the main system of sewers was approaching completion, and that city has now the best system of sewerage in the province. The form of the village sanitary book was revised, with the intention that wider use should be made of it, and entries regularly made by the district officials. United Provinces.

In the Punjab plague was very prevalent in almost all the towns of the Delhi, Amritsar, and Lahore divisions, and many severe outbreaks occurred in the towns of other divisions. The sewage extension works at Simla were practically completed during the year 1904, and all the systems of new sewers were brought into use, and progress was made with the construction of the sewage disposal works. An examination of the sanitary works at that station in connection with an outbreak of enteric fever revealed the fact that the outbreak was not due to any defect in the water or drainage works. A scheme for increasing the water supply was, however, under consideration. The Amritsar waterworks were completed and opened in November, and a scheme for clearing storm channels round the city was sanctioned. The headworks of the Ambala city water supply were extended by the addition of five new wells. Among the estimates for works to be undertaken was one for the drainage of the Delhi suburbs, which is estimated to cost £25,300. The capital expenditure on water supply and drainage works from municipal funds was £34,300 in 1904–05, against £51,800 in the preceding year, the special expenditure at Amritsar having come to an end. The system of village sanitary notebooks was in force in every district, and was being extended. Several of the district boards continued to give special attention to village sanitation, sub-committees having been formed in most districts with this object, with notable success in Kangra and Jullundur. Punjab.

The Rangoon sewerage, designed on the Shone system for a population of less than 42,000, has had to cope with a population which has grown to 200,000, and it has therefore been decided, on the report of the expert who originally superintended the construction of the works, to spend £34,700 on improving it. The state of the drainage, surface and other, disclosed in his reports, was very unsatisfactory. The work of reclaiming and draining East Rangoon was continued during the year 1904–05, and a committee has been appointed to report on reclamation matters generally. The scheme is financed by the cession by the Government of the townland rents for a period of 50 years to the municipality. The reclamation of the Ahlone and Lanmadaw quarters was about to be commenced. The two sources of the water supply were formerly the Royal and the Victoria Lakes. But the supply from the former had been so bad that in 1900 its use for domestic purposes was discontinued. The Hlawga water supply works, which have been carried out to augment the present supply from the Victoria Lake, cost £308,900, and were opened in February 1905. The results appeared disappointing, and fears were caused that the project had been executed on defective lines. A committee was appointed to investigate the question, and their report has shown that the supply from Hlawga is much more than BURMA. Rangoon.

SANITATION. sufficient to meet all requirements, and that the failure to obtain an increased supply was due to the inadequacy of the distribution system in the town itself, which will require improvement. The birth-rate of the town is given as 17·86 per thousand of the estimated population; the death-rate showed a slight decline, to 33·61 per mille.

Interior of Burma. In the other municipalities of Burma the chief sanitary work in progress was the water supply scheme of Moulmein, which was almost completed by the end of the year 1904. The original scheme for water supply at Mandalay, estimated to cost £93,300, was abandoned on the ground of expense, and it was decided to provide the supply by sinking wells, at an estimated cost of £23,300. At Akyab preliminary steps were taken for a new reservoir in connection with the sanctioned water supply scheme. The only matter needing notice in respect of drainage was the completion of a small septic tank installation at Maymyo. In rural areas something, but not very much, was done in respect of village sanitation by expenditure from the small district cess funds.

Central Provinces and Berar. There was considerable activity as regards sanitary matters in many towns of the Central Provinces and Berar; but the want of funds, especially in view of the heavy plague expenditure, hampered action. The Wardha town drainage scheme was submitted for sanction, and similar schemes were in course of preparation for Bilaspur and Yeotmal. Minor works were in progress in various towns in connection with water supply, but the efforts of municipalities were to a large extent directed to repairing and improving wells. As regards rural areas, expenditure on water supply in villages was made out of a Government grant for that purpose. Conservancy of the larger rural villages is provided for in the Central Provinces by the Village Sanitation Act; but there is no similar law in force in Berar, where such expenditure is borne by the district board.

Assam. The small municipalities of Assam cannot afford costly works for a water supply, which has generally to be provided by the construction of wells and tanks, as funds permit. Four municipalities spent more than half of their incomes on sanitation in the year 1904, the lead being taken by Dibrugarh. The only work of importance undertaken during the year was the new waterworks scheme for the town of Gauhati. The sanitary improvements effected in rural tracts were chiefly in the direction of providing a purer water supply by the construction or repair of masonry wells and the excavation of tanks at some of the larger villages; but the amount spent on these objects is not large.

MADRAS. Madras City. For the first half of the year the laying of the sewers in the South Triplicane part of Madras city was in progress. In October 1904 a special engineer was appointed for the drainage works, and work was begun and made good progress in the North Triplicane, Chintadripett, Egmore, and Vepery. In South Triplicane most of the masonry work was completed, and temporary arrangements were made by which the sewage of that area and of Royapettah was disposed of, with good effects on the sanitary condition of the neighbourhood. Other works of minor importance were also being carried out. The quantity of water supplied from the Red Hills Lake was about 2½ per cent. greater than in the previous year; but the lake stood at its lowest at the end of the year, pumping having to be resorted to during the last two months. When the drainage has been put in order there will be much to do for the improvement of the water supply, both in quantity and quality. The birth-rate of the town was 40·1 per mille, and the death-rate was 37·9 per mille.

Interior of Madras. In the Madras Presidency the urgently needed waterworks at Coonoor were in progress during the year, and have since been opened. At Guntur the construction of public waterworks was in progress, and the supply has been extended and improved at Dindigul and Trichinopoly. Projects for waterworks were also under consideration in twelve other towns. The drainage scheme for Ootacamund, estimated to cost £24,200, had not yet been finally approved, and no work was begun on it. The Madura drainage scheme, revised on the ground of its expense, is now estimated to cost £23,300. It is reported that district boards spend less upon sanitation than is desirable, and more energetic pressure by district medical and sanitary

officers is said to be needed. No local fund board has yet provided a piped water supply, though there are many places at which for a small expense a complete water supply could be secured. SANITATION.

The drainage works in connection with the scheme for subsoil and surface drainage in Bombay city, commenced in 1903-04, were pushed on vigorously in the year under report. The works connected with the Malabar Hill sectional sewerage and other works of a minor character, including the fitting up of the Gilder tank, were in progress, besides the net addition of 288 house connections, and other ordinary developments. The question of the surcharging of sewers was under the consideration of a committee appointed by the Corporation to report on the matter. The lakes and reservoirs which supply the city with water were maintained in good condition, excepting that, owing to the collapse of the outlet tunnel of the Tulsi lake, the supply from that source was cut off from September 1904. The rainfall was fair, though not so large as in the preceding year, and the lakes were fully replenished. A special officer had been appointed to investigate the leakage from pipes and mains, which was found to be very great. The leaks were repaired as soon as discovered, and a marked improvement in the supply and pressure was the result. The birth-rate of the year 1904 is given as 25·2 per mille; the death-rate was 54·99, which is lower than that of any year since 1896, when the plague began. These rates are based on the population returned in the census of 1901, but it is probable that the actual population is now much greater, and the real rates should therefore be smaller. The number of deaths from plague during 1904 is given as 13,500, which equals 17·44 per mille, a much lower rate than in 1903. BOMBAY. Bombay City.

In the other municipalities of the Presidency the presence of plague again served to disturb the finances, and precluded the execution of many urgent schemes of water supply and drainage. In one or two large towns, Poona for instance, where a constant water supply has been provided, drainage schemes are urgently required. Many need an improved water supply. During the year 1904, the total expenditure of the district municipalities on sanitation, including conservancy, drainage, and waterworks, stood, as in the preceding year, at £117,000. The only important work in progress was the drainage of a portion of the city of Ahmedabad, which was approaching completion. At Karachi arrangements were in progress for the extension of the Shone system of drainage, at an estimated cost of £76,700. The Village Sanitation Act, which provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the Collector of the district or by the Local Government, to supervise sanitary matters, was introduced in 261 villages, and the number of villages in which the Sanitary Inspection book had been introduced was raised to 3,467. Interior of Bombay.

## HOSPITALS, DISPENSARIES, AND LEPER ASYLUMS.

There are in India, besides the large hospitals in Presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces for which no statistics are available. In Bengal the three years ending with 1904 were a period of strenuous activity in the medical institutions of the province. A spirit of progress was abroad, and much real progress was made, with the help of Government, local committees, and the public. The larger institutions were being modernised, and the smaller hospitals and dispensaries were gaining in popularity. They are still defective in many respects, and not sufficient in numbers, and it is hoped that as the people become more awake to their advantages, funds will become available for their development. In the Bombay Presidency, private non-aided institutions increased by 33 during the last three years. In Madras, a bacteriological section has been opened, and investigating laboratories and a dark room fully equipped with X ray apparatus were constructed at the General Hospital, Madras. The year under notice shows a continued increase in the number of patients attending the hospitals and dispensaries in most provinces. HOSPITALS AND DISPENSARIES.

HOSPITALS, &c.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with 752 beds and a daily average of 413 in-patients in 1904, the Sir J. Jijibhoy hospital in Bombay city with 298 beds, the Government General hospital at Madras with 473 beds, the Mayo hospital at Lahore with 245 beds, the Rangoon General hospital with 480 beds, and others. The expenses are met to a large extent by the State, especially in the Presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £66,000, including salaries, towards a total expenditure of £88,400; in Bombay city, £23,600 out of £32,200; in Madras city, £30,500 out of £36,200. Elsewhere, however, the chief contributions are from local funds; of the £86,500 received by the Madras dispensaries in the interior, £72,300 came from local or municipal funds; in Burma, £25,200 out of £62,100 came from such funds; and so on. Private subscriptions do not form a large proportion of the receipts; in Bengal they amounted to £25,300, chiefly from Native donors, including about £3,200 subscribed in Calcutta, and in the United Provinces to £8,600; elsewhere the amounts were smaller.

LEPER ASYLUMS.

There are many leper asylums scattered throughout India, of which may be mentioned the Madras Government Leper Asylum (543 treated in 1904), the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum, the last three having accommodation between them for about a thousand lepers. There are also a large number of asylums or homes, under some sort of Government supervision in many cases, including nearly 50 asylums of the Mission to Lepers, at which nearly 4,000 persons were reported to have been treated in a recent year. The census of 1901 showed a decline in the number of lepers to 97,340, compared with 126,244 in 1891, and the proportion works out to 48 male and 17 female lepers in every 100,000 of the population. Berar had the largest proportion of lepers (2 per mille), followed at some distance by Assam, Bengal, the Central Provinces, Burma, Madras, and Bombay, in that order.

LUNATIC ASYLUMS.

## LUNATIC ASYLUMS.

The treatment of lunatics at asylums prevails only on a small scale in India. In comparison with European countries insanity appears to be infrequent in India, as for instance in Bengal, where the ratio of the insane to the population is given as 2·93 per 10,000, against 34·71 per 10,000 in England. But allowance must be made for the much greater completeness of the information available in England. The census of 1901 showed a decrease of nearly 11 per cent. in the number of insane since 1891. The decrease occurred in nearly every province, and was explained in many of them by the probability that the insane would suffer more than the general population in years of scarcity of food.

In Bombay there are seven lunatic asylums, at which 836 lunatics were under treatment at the end of 1904; in Bengal, there are six asylums, with 1,101 patients, more than half of them being criminal lunatics; in the United Provinces, four asylums, with 1,183 patients at the end of 1904; three asylums, with 586 patients, in the Madras Presidency; two, with 360 patients, in the Central Provinces; one each in Burma and Assam, with 448 and 165 lunatics respectively; while the Punjab Lunatic Asylum at Lahore contained 705 patients.

PLAGUE.

## PLAGUE.

Plague in 1904.

There was a large increase in plague mortality in the year 1904, the total for all India being 1,144,900 deaths, of which 938,000 occurred in British India. The recorded plague deaths for the six years ending with 1904, for the whole of India, including Native states so far as reported, are given in the margin. In the Bombay Presidency, with its Native states, the number was 287,300, which was considerably below the number of plague deaths in the Presidency in the previous year. The plague mortality in Bombay city was much lower, only 13,500 deaths being ascribed to this cause. In the Central Provinces also the number of deaths was lower, and in Bengal there was no

PLAGUE DEATHS.

| | |
|---|---|
| 1899 | 139,000 |
| 1900 | 92,800 |
| 1901 | 283,000 |
| 1902 | 583,900 |
| 1903 | 865,600 |
| 1904 | 1,144,900 |

very great increase, the Calcutta figure of 4,700 deaths being much less than in 1903. The great extension of the disease occurred in the Punjab, where there were 396,300 deaths, against 192,100 in 1903, and in the United Provinces, where the number rose from 80,700 to 179,100. The death-rate from this cause alone in the Punjab was 19·7 per mille, as has already been stated, the rate being higher than that of the previous year in every district except Amritsar and Gujranwala. In twelve districts the death-rates from this disease alone exceeded 20 per mille, the rate in Shahpur district actually rising to 71 per mille. Plague has generally been more epidemic in the Punjab rural areas than in the towns of that province; but in 1904 the plague death-rates of Lahore, Amritsar, and Delhi were higher than before, though still not to be compared with those for Allahabad, Lucknow, and Cawnpore, in the United Provinces. PLAGUE.

The year 1905 has been marked by a great extension of plague in the United Provinces, and some increase in the figures for Rajputana and Bengal. 1905.

PLAGUE DEATHS IN 1905.

| | |
|---|---|
| Punjab - - | 364,100 |
| United Provinces - | 303,700 |
| Bengal - - | 109,900 |
| Bombay - - | 97,700 |
| Rajputana - - | 32,200 |
| Other Provinces and States. | 43,000 |
| Total - | 950,600 |

In the margin are shown the totals for the more important provinces during the year, compiled from the monthly returns. The most satisfactory feature is the large decline in the Bombay figure, as compared with preceding years. It may be added that, so far as returns have been received for 1906, they indicate a very marked and most satisfactory decline in the number of deaths from plague, which were 56,500 in March for the whole of India, compared with 209,200 in March 1905, and 178,700 in March 1904.

In the course of the year under report, it was decided to institute a comprehensive inquiry into the natural history of plague, and the scientific problems connected with its propagation and dissemination, in the hope that, if knowledge on these matters could be secured, some progress might be made in the practical methods of combating the disease. The Royal Society and the Lister Institute having consented to undertake the direction and supervision of the investigation, a grant of £5,000, renewable annually, was allotted to this purpose by the Secretary of State for India. The two Societies appointed a Joint Committee of four, and a fifth member was added to represent the Secretary of State and the Indian Government, and to act as President. Two investigators were selected by the Committee to undertake the work of research in India, and three members of the Indian Medical Service, having special experience in the work, have been deputed by the Government of India to co-operate with them. The Director of the Lister Institute, Dr. C. J. Martin, F.R.S., who is one of the members of the Committee, visited India in April 1905 to confer with the authorities regarding procedure, and to initiate the work. After visiting Kasauli, he decided to commence work at Parel, near Bombay, where the Plague Research Laboratory offers special facilities. He stopped in India, to organise the work, until October 1905. Plague Investigation Committee.

There are two main branches of the inquiry, namely, epidemiological investigations, which include an extensive scheme of catching and examining rats, with a view to gaining knowledge as to their precise connection with the spreading of plague, and secondly, experimental work, dealing with such problems as the methods of exit of the bacillus from the bodies of men and rats, the conditions under which the bacillus can lead a saprophytic existence, the variation in violence by continued passage through rats, investigation of rat parasites, and experiments on the infection of animals by means of fleas, &c., fed on plague-infected animals. Considerable progress has been made with the work in Bombay, and two villages in the Punjab, in which plague had periodically recurred, were selected as the subject of a complete epidemiological study.

Meanwhile, the Government of India resolved to collect the results of experience obtained in India in the practical administration of plague-infected areas; and all local governments were accordingly requested to obtain reports, based as far as possible on their personal experience, from selected civil and medical officers serving under their orders, regarding the conditions which affect the origin and spread of plague, the conditions which in their opinion principally determine the character of the measures to be adopted against

PLAGUE.

it, the degree of success which has attended those measures, and the causes of relative success or failure.

Government Resolution on Plague measures.

The Government of India summed up the conclusions which have been gained up to the present, in a Resolution published on the 17th January 1906. "The most conspicuous change," they say, "in the opinion of experts in "India regarding plague since the issue of the Resolution of 16th July 1900 "is the greatly increased importance now ascribed to the part played by rats "in spreading and keeping alive the disease. Rats are exceedingly susceptible "to plague, and when once they are infected they usually communicate the "infection not only to man, but also to houses which have undergone thorough "disinfection. It is, therefore, as essential to the safety of the community to "destroy infected rats as to segregate plague-stricken people. In fact almost "all the evidence regarding the causation of plague may be regarded as "pointing to the rat as the chief agent in its diffusion. For this reason the "importance of destroying rats has been insisted on by the framers of the "Paris Convention of 1903, and although European opinion is not unanimous "on the point, the Governor-General in Council considers that the experience "recently acquired in India warrants the belief that the systematic destruction "of these animals promises to be one of the most effective measures that can "be adopted for preventing the spread of plague."

The Government proceed to review the other measures which have been employed, and a condensed account of their remarks is given below :—

*Street Improvements.*—Municipalities should be encouraged to demolish insanitary quarters, to improve the paving of alleys and sidewalks, to widen narrow streets, to enforce simple building rules, and to perfect their systems of drainage and conservancy, all these points having a direct influence on plague prevention. Buildings where grain is stored should be made rat proof, and properly inspected.

*House Disinfection.*—This measure is useful only when employed thoroughly and in suitable cases. It is of little use in villages, or in towns in which plague has become indigenous. In any case, the fluids used must be really germicidal, and it is essential to prevent the re-infection of the house by rats.

*Evacuation of Locality.*—No measure has proved so efficacious as this, and the people should be encouraged to adopt it; but it must be completely carried out, and must be accompanied by destruction of rats.

*Inspection of Travellers.*—This measure is often serviceable if applied in the right circumstances, as for protecting limited areas, such as hill stations, so situated that the inspection stations can command all the routes of access. No traveller need be detained who is not actually suffering from plague, since experience has shown that mere contact with a case of plague in a railway carriage involves little danger of infection.

*Land Quarantine.*—In rural areas the people may sometimes save their village from infection by combining to prevent persons from infected places from entering the village; the measure is not applicable to towns.

*Segregation of the Sick.*—This is useful, especially in respect of the first few cases imported into a plague-free town, or the infectious pneumonic plague; but it is unpopular, and is not generally necessary, if the surroundings of the patient be kept clean and free from rats.

*Segregation of Contacts.*—This is necessary in the case of pneumonic plague, as the risk of infection is extreme; in other cases, owing to the unpopularity of the measure, it is generally impracticable.

*Inoculation.*—Protects against plague and mitigates the violence of an attack. The Government hope that the people may be encouraged to have recourse to it.

The application of any of these measures must, however, in the view of the Government of India, depend upon the circumstances of the locality, the character of the people, the stage which the disease has reached, and the agency available for dealing with it, and in view of the widely varying conditions, the Government of India cannot lay down any uniform scheme of

plague administration. They observe that all preventive measures depend for their success upon the hearty co-operation of the people themselves, and that every effort should be made to enlist their sympathies, and to bring home to them through their natural leaders, and in any other way that may be practicable, that it rests mainly with them to bring about by their own action the cessation of plague in India. PLAGUE.

# CHAPTER III.

## JUSTICE AND POLICE.

CRIME AND POLICE.

### CRIME AND POLICE.

The year 1904–05 was marked by perhaps the most important event that has ever taken place in the history of police administration in India. The Report of the Police Commission (*see* previous issues of this Statement) was published on the 21st March 1905, together with a Resolution of the Government of India reviewing the Report and stating in detail the reforms which are to be undertaken as a result of the investigations and recommendations of the Commissioners. Of the Report itself, which sketches the history of police organisation in India, states with candour and force its present condition as it appears to the Commissioners, and sets forth in full the reforms which they consider desirable, as well as of the Resolution of the Government of India thereon, it is not practicable to give any adequate summary within the limits of this Statement, nor, indeed, is it necessary to do so, since both documents have been published in this country as a Blue Book (Cd. 2478). Here it must suffice to say that the reforms decided on affect every grade of the service and every part of its organisation, and will involve a recurring additional charge on the revenues of India of rather less than a million sterling annually. Their main feature is a general increase in the number of the force and in the scales of pay throughout the service.

Bengal.

The total sanctioned strength of the police force in Bengal, excluding the Calcutta force and the railway and military police, was at the end of the year under review 24,165. The expenditure on the force during the year was £378,008, an increase of £8,074 on the previous year.

The town police, consisting of town *chaukidars* and constables, were again unfavourably reported on. It has been decided to replace all town *chaukidars* by constables, who will receive the improved rates of pay recommended by the Police Commission, and it is confidently expected that increased efficiency will follow. In the rural police, the total number of *chaukidars* rose from 153,185 to 154,064. A sum of £4,435 was paid to them in rewards as against £4,004 in 1903, but the actual number of *chaukidars* rewarded decreased considerably, owing to the discontinuance of rewards for regular attendance. The *daffadari* system was in force in all divisions except Chota Nagpur.

Of the total force employed at the end of the year, 90·8 per cent. of the officers and 29·6 per cent. of the men could read and write. The charges of torture and extortion brought against the police numbered respectively 5 and 83, as compared with 19 and 68 in 1903. Of these, 2 and 57 respectively were declared to be false or dismissed.

No change was made in the sanctioned strength of the military police (400), and their conduct and discipline were reported to be generally satisfactory.

The total number of cognisable* offences reported increased by 428 to 178,864. Of the total number made up of these together with pending cases, 140,169 were reported to the police, who investigated 69 per cent. of the whole number, as against 70 in 1903. Excluding cases in which inquiry was refused, the police inquired into 117,331 cases *suo motu*, and into 5,783 cases by order of a magistrate. The percentage of convictions was 36·4, as against 36 in 1903.

As regards serious crimes, the total number of cases of rioting and unlawful assembly tried fell from 2,228 to 2,112, the lowest on record since 1881. Convictions were obtained in 59 per cent. of the cases. There was a satisfactory decrease under the heads Dakaity, Robbery, and Cattle Theft. Murders, however, rose from 387 to 418.

* Cognisable offences are those for which the police can arrest without a warrant.

CRIME AND POLICE.

The newly developed Criminal Investigation Department did very valuable work, and obtained most successful results during the year.

The sanctioned strength of the Calcutta Police Force was increased by 2 inspectors and 5 constables during the year. The total number of cognisable cases was 42,892, as against 38,853 in 1903, but this increase is said to show not so much an actual fluctuation of crime as an increased activity on the part of the police and the agents of the Society for the Prevention of Cruelty to Animals. There was a decrease under the head of murder and graver offences against the person, and the only really unsatisfactory increase apparent was in respect of burglaries. The percentage of cases ending in conviction to the total number tried was 90.

United Provinces.

The total strength of the police force in the United Provinces was 27,099, and the total cost £384,986. The punishment roll was lighter than in the previous year; the number of officers dismissed departmentally fell from 52 to 40, and the number of men dismissed from 157 to 153. Resignations increased from 726 to 737. On the whole the year's record showed a steady improvement in the police work. Money rewards were more liberally given to the police and to village *chaukidars*, and the number of officers and men rewarded by promotion increased. The number of literate officers increased from 4,166 to 4,218, and that of literate men decreased from 4,928 to 4,632.

The total volume of reported crime showed a decrease of 4,323 cases, or 2·59 per cent., on the figures of the previous year, the crime return being the lowest recorded in the past 14 years. Of the total record of crime for disposal, the police investigated 82,586 cases, or 49·8 per cent. Considering only crime reported to the police, 9·9 per cent. of the cases inquired into were not sent before the Courts for want of proof, 60·4 per cent. were sent before the magistrate, and in 29·7 per cent. no clue was obtained. In 45 per cent. of the total crime reported, inquiry was refused. These figures indicate a satisfactory improvement on the previous year, when the percentages were 10·1, 59·7, 30·2, and 46·2 respectively.

As regards professional and organised crime, there were 349 cases of dakaity for disposal as against 410 in 1903, and 9 cases of professional poisoning as against 17, while the number of true cases of robbery reported fell from 757 to 683. The work done by the police in the prevention, detection and prosecution of dakaity was the best which has been performed for many years.

As regards other serious crimes, the number of murders fell to 405, and the result of police action in this class of crime was better than in the previous year. A decrease of 317 occurred in the number of cases of cattle theft for disposal, and the number of cases of ordinary theft fell by 1,698.

The number of cases decided was 54,318, or 240 more than in 1903. The percentage convicted was 82·4, as against 83·2 in the previous year, but in cases investigated by the police the percentage of convictions rose from 53·8 to 54·2.

There was an increase of 3,500 in the number of cases of non-cognisable crime. Property stolen was valued at £125,437, a considerable increase, and the percentage of recovery was the same as in the previous year, 23.

Punjab.

The total strength of the police force in the Punjab at the end of 1904 was 3,166 officers and 15,476 men; the strength was during the year increased by 96 officers and 308 men. The estimated cost of the force was £238,716. The number of officers, including sergeants, who could read and write was 2,661 and of constables 3,596. Departmental punishments inflicted on members of the force numbered 1,716 and judicial punishments 85, as compared with 1,711 and 103 respectively in 1903. Dismissals numbered 173, and resignations without pension or gratuity 1,016, as against 213 and 738 respectively in the previous year.

The total number of cognisable offences reported (85,365) showed an increase of 291 on the total for 1903. Offences under the Penal Code, however, decreased by 1,816 to 61,592. Of the total number of cases, 49,858 were reported to the police and 35,507 to magistrates. A large number of the latter were unfounded, and the true cases related for the most part to minor offences; very little true cognisable crime was brought to notice except through the police. Dakaities continued steadily to diminish

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in number, having dropped from 151 in 1900 to 41 in the year under review. The number of murders increased from 440 to 472, and the number of cases of murder by poisoning was still high, having risen by 9 to 80. The increasing difficulty of procuring trustworthy evidence in murder cases was again an unsatisfactory feature; of such cases only 55 per cent. were sent for trial, and 37 per cent. of persons were convicted.

The percentage of convictions in cases reported to the police was 30, and the percentage of persons convicted to persons reported was 54, both figures being the same as in 1903. The estimated value of property stolen during the year was £69,849, of which 44 per cent. was recovered, as compared with 33 per cent. in 1903.

There was an increase in the number of punitive posts, continued and imposed during the year, and this form of punitive prevention in checking crime has been attended by striking success.

Burma.

The total strength of the Burma civil police was 12,775, or 569 below the sanctioned strength, and the cost of the force was £260,213. The strength of the military police was 15,306. The difficulty in obtaining recruits for the civil police continued, but there were fewer resignations and fewer dismissals than in the previous year. The number of literate officers and men increased by 37 and 166 respectively, the percentages at the end of the year being 98 and 85. The number of punishments showed a slight decrease, and on the whole the conduct of the force was good.

The total number of true cognisable cases (44,301) was 4,205 higher than in 1903, though the latter year showed figures considerably in excess of those of 1902. But there was a decrease in the volume of violent crime; murders fell by 14, and robberies by 34 cases. Dakaities and cattle-theft remained practically stationary. The mean figure of detection for the province fell from 61 to 58 per cent., and the percentage of convictions in true cognisable cases of all kinds investigated by the police was 68. A noteworthy incident of the year's work was the arrest of the leader, and last surviving member, of the gang that murdered Mr. A. H. Tucker in 1894. Offences under the Gambling, Excise, and Opium Acts all showed an increase.

The relations between village headmen and the police were, with few exceptions, reported to be satisfactory, and assistance was generally rendered by village headmen and villagers in cases of violent crime. Rewards were liberally paid to them.

Good work was done during the year in the matter of the identification of criminals by the Central Bureau in Rangoon, and the figures dealing with the recognition of old offenders showed an improvement on the previous year. The work of beat patrols was more satisfactory than in 1903; the system is considered to be eminently suited to the conditions of Burma, and its revision and improvement was under consideration. The conduct of the military police was good, but the health of the force continued to be unsatisfactory.

Central Provinces and Berar.

The strength of the police force in the Central Provinces and Berar (11,435) showed a deficiency of 273 men. It was still found difficult to obtain recruits, particularly in the Nagpur country and Berar, and resignations increased from 490 to 532 The death roll of the year decreased to 156 from the previous year's excessive figure of 237. The punishment returns were again considerably lower than in the previous year, the decline being specially marked in the Central Provinces. Rewards of all kinds were more freely granted than ever before, the number rising from 2,751 to 3,101. The total cost of the police was £135,039, as against £133,521 in 1903.

For the greater part of the year there was unusual prosperity among the agricultural classes, brisk trade and a great demand for labour, all of which favoured a decrease in crime. On the other hand, many parts of the provinces still suffer from plague, and the poor out-turns of the autumn crops created some local distress. In the result, the amount of crime in 1904 was almost exactly the same as in 1903 (in which year it was the smallest on record) the total number of cognizable offences, excluding nuisance cases, being 19,686, as against 19,667 in the previous year. There were, however, some very bad murder cases in the Central Provinces; the total number of murders was 160, of which only 30 took place in Berar. On the other hand,

while the number of dakaities in the Central Provinces fell further to 14, of which 5 were very petty affairs, the number of crimes of this nature in Berar increased to 45. There was a considerable decrease in the number of robberies both in the Central Provinces and in Berar. CRIME AND POLICE.

The most noticeable feature of the year's police work was the attention that was paid to the doings of professional criminals and the success which attended the efforts of the police to deal with this class of offender. A capture of great importance was made by the Nimar police of a gang of dakaits under the leadership of Gumania Nahal, a noted outlaw, who had for many years terrorised the hilly country on the Khandesh-Indore border. The results of police work in murder cases were good in the Central Province but unsatisfactory in Berar.

The total value of property stolen in both provinces decreased from £45,219 to £40,917, while recoveries amounted to 36 per cent. in 1904 against 34 per cent. in 1903.

The military police in Assam numbered at the close of the year 317 officers with 2,452 men, and the force was reported to have maintained its efficiency. The strength of the Civil force, including Union police, was 391 officers and 2,122 constables. The discipline of the civil police showed an improvement, but there was no marked change in the number of resignations, and 584 officers and men were punished departmentally, as against 469 in 1903. Assam.

The total number of cognisable cases for disposal was 17,100, as compared with 16,771 in 1903. Of this number, 10,177 were investigated by the police and 7,214 were decided, the percentage of convictions being 70·9. Cases reported to the police numbered 10,220, of which 92·7 per cent. were investigated, convictions being obtained in 81·7 per cent. of the cases brought to trial. Although cognisable crime in the aggregate remained practically stationary, noticeable variations occurred under some of the main heads. A marked decrease took place in cases of murder and culpable homicide, and rioting continued to diminish. Dakaities showed a slight increase, and there was a serious increase in the number of cases of lurking house trespass and housebreaking. The percentage of property recovered to property stolen rose from 30·9 to 32·5.

Non-cognisable crime showed a decline from 16,718 to 16,463 cases.

The total number of *chaukidars* in the districts of Sylhet, Cachar, and Goalpara, where alone a Rural Police force was maintained, was 6,717. In Cachar they were reported to have worked well throughout the year, but in the other two districts they were unfavourably reported on.

The total sanctioned strength of the police in the North-West Frontier Province was 3,129, and the estimated cost of the force £40,536. The province inevitably shows a worse record of crime than the other more settled provinces, but the returns for the year were distinctly satisfactory. There was a continued reduction in the number of serious crimes, and a steady decrease in the number of proclaimed offenders and outlaws. The discipline and health of the force were good, but there was a regrettable increase in the number of resignations and great difficulty was experienced in recruiting. The percentages of literate officers and men showed a further decrease. North-West Frontier Province.

The number of cognisable cases reported was 9,774, as compared with 9,512 in 1903. The increase was, however, confined to trivial offences; the statistics of serious crime showed a general improvement. Murders fell from 180 to 152, dakaities from 55 to 34, and robberies from 105 to 98. The percentage of convictions to cases reported was 25, as against 28 in the previous year. Property stolen was valued at £7,264, while the percentage of recoveries rose from 36 to 39. The number of persons ordered to furnish security for good behaviour was 656, as against 677 during the previous year. One punitive post was withdrawn during the year, and no new posts were established.

The total strength of the Coorg Police Force was 224, and it cost £2,862. The total number of cognisable cases reported was 774, as against 668 in 1903, the increase relating mainly to offence against property. There were four cases of dakaity and three of murder. The proportion of convictions Coorg.

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obtained in cognisable cases investigated by the police (85·1 per cent.) showed an improvement on the previous year's high figure. The percentage of stolen property recovered was 66·5.

Madras.

The total strength of the police force in Madras (excluding the punitive police) was 24,521, the increase of 702 during the year being due mainly to the temporary establishment sanctioned for plague duty. The total cost of the force was £318,489, as against £312,871 in 1903. The recruiting difficulty in certain districts was as acute as ever, and there was a slight increase in the proportion of illiterate constables—15·8 per cent., as against 15·5 per cent. in the previous year. The percentage of men punished for was offences other than absence without leave was 29·3, as in the previous year. Dismissals increased considerably, and there was a marked rise from 209 to 309 in the number of judicial convictions; these increases, however, were mainly due to the large number of temporary plague police prosecuted under the Police Act in Bellary and North Arcot. The sanctioned strength of the Madras City Police was 1,445, and the actual strength at the close of the year was 1,367, considerable difficulty being experienced in recruitment. Village police and village magistrates showed little improvement.

A rise in the prices of the principal food grains occurred towards the close of the year, and had the effect of increasing the total amount of grave crime committed in the presidency. The number of cognisable cases under the Indian Penal Code, excluding nuisances, numbered 61,197, as against 58,458 in 1903, and the number of true cases was 43,843, as against 41,900. Murders increased by 35 and dakaities by 21. There was again a deterioration in the detective results shown by the police. Thirty-four per cent. of true cases reported were detected—the lowest percentage for the past eight years. The percentage in cases of murder was only 19, and the detection of dakaities (19·7 per cent.), though slightly better than in the previous year, was still very unsatisfactory. The proportion of convictions to cases prosecuted by the police was 79·1 per cent.—fractionally higher than in 1903.

Only two serious disturbances of the public peace occurred during the year, and in neither case did the principal offenders escape adequate punishment. The working of the finger-print bureau continued to be satisfactory.

Bombay.

The total strength of the police force in the Bombay Presidency, inclusive of Sind and railways, but excluding the special forces employed temporarily for famine duty, was 22,377, or 71 more than in the previous year. The total expenditure increased from £291,693 to £300,773. There was again a slight improvement in the education of the force, the percentages of officers and men able to read and write being 73 and 48·8 respectively, as against 71·6 and 48 in 1902. The total number of punishments inflicted (3,507) exceeded that of the previous year by 207, but there was also a rise, from 789 to 856, in the number of money rewards granted.

The year's statistics show an increase of homicides, attempts, and thefts, but a marked decline in the number of dakaities, robberies, and burglaries. Less property was stolen and a better percentage recovered. The efforts of the police in dealing with crime were, on the whole, attended with better results, and fewer crimes remained undetected. Two notorious dakait leaders were captured during the year.

During the year 115,936 offences in all, cognisable and non-cognisable, were reported, as against 120,440 in 1903. The total number of cognisable cases reported to the police, or taken up by them, was 35,727. Including pending cases of the previous year, the complaints for disposal totalled 38,823, including 30,773 Indian Penal Code cases. Of these, all but 208 were investigated. The percentage of convictions in cases brought before the courts by the police was 78·9, as compared with 78·6 in 1903. The proportion of undetected cases to those for disposal was 17·53, showing a slight improvement on the figure for the previous year.

In Bombay City cognisable offences numbered 49,879, as compared with 42,814 in 1903. The increase was confined to offences under local Acts, and there was a decrease in the number of cases of serious crime, with

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the exception of murders, which rose from 15 to 20. The percentage of convictions in police cognisable cases rose from 95·6 to 97·3. The aggregate value of property stolen rose from £19,291 to £21,596; there was a slight fall, from 55·6 to 50·9, in the percentage recovered. The public peace was well preserved with the exception of a serious disturbance which broke out during the religious festival of the Mohrum, and assumed so grave an aspect that it became necessary to call out the military. The conduct of the police of all grades in the difficult circumstances in which they were placed was favourably commented on by Government.

## CRIMINAL JUSTICE.

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Bengal.

The total number of criminal offences reported in Bengal was 312,840, an increase of 9,381 on the figures of 1903. The increase was common to offences under special and local laws, which rose by 7,891, and numbered 110,153, and to offences under the Indian Penal Code, which rose by 1,490 to 202,687. The number of cases declared to be false and dismissed constituted 20·5 per cent. of the whole number. Of the 249,496 true cases, 185,865 were brought to trial.

Presidency Magistrates, including the Municipal Magistrates, dealt with 35,948 cases. Of the 30,050 persons brought to trial, 27,659 were convicted. Magistrates outside Calcutta had before them 149,928 cases, a slight increase on the figures of 1903. The pending file at the end of the year showed 4,679 cases, as against 4,314 at the end of 1903. Of the persons whose cases were disposed of, 57·7 per cent. were convicted. The total number of witnesses called in the magistrates' courts of the mufassal was 476,535, of whom 25·2 per cent. were discharged without examination and 1·5 per cent. were detained after the third day. The sentences passed by magistrates included 23,132 of rigorous imprisonment, 921 of simple imprisonment, and 1,774 of whipping, with or without other punishment.

Cases committed or referred to the Sessions Courts during the year numbered 1,811, or 4 more than in 1903. The number of cases disposed of was 1,828, and the pending file at the end of the year showed 220 cases. Of 4,372 persons under trial, 64·2 per cent. were convicted. There were 55 sentences of death, 399 of transportation, and 31 of whipping. The number of persons tried by jury was 1,063. In 876 of these cases the Sessions Judge approved of the verdict; 83 cases in which there was complete disagreement were referred to the High Court. Of these, 46 cases were decided, the verdict of the jury being accepted in 8 and rejected in 31. Of 2,164 cases tried with the aid of Assessors, the Judge concurred with the opinion of both Assessors in 1,629 cases, and in 326 differed from both. The average duration of Sessions trials was 39 days. This is a satisfactory improvement on the returns of previous years, the duration previously reported being 44 days for 1903, 51 for 1902, and 53 for 1901. Out of 26,839 witnesses, 7·6 per cent. were kept after the third day.

The High Court tried 68 cases, involving 102 persons, of whom 71 were convicted, and left 14 cases undecided at the close of the year. The average duration of cases from commitment was 36·7 days.

Including 104 pending cases, there were before the High Court 1,198 appeals, of which 1,099 were decided. Out of 872 appeals from sentences of the Sessions Courts, the orders of the lower Courts were upheld in 727 instances and reversed in 37. Sixteen appeals by the local Government against orders of acquittal were decided during the year, the orders being reversed in six cases. The Sessions Courts decided 5,808 appeals and the Magistrates' Courts 5,121, the percentages of wholly unsuccessful appellants being respectively 65·6 and 67·4. In the case of death sentences referred from the Sessions Courts, the sentences on 35 of the 59 persons concerned were confirmed and 14 commuted to transportation or imprisonment, while in eight cases the person sentenced was acquitted. The High Court decided 286 revision cases and the Sessions Court 8,525.

The total charges for the year in connection with the administration of criminal justice amounted to £199,941, and the receipts to £109,090.

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North-West Provinces.

For legislative purposes the North-West Provinces and Oudh are united, but inasmuch as Oudh is not subject to the High Court of the North-West Provinces, the judicial statistics of the two are given separately.

The number of offences reported during the year (125,976) though showing a slight advance on the previous year's figures (123,602), was still low, the average of the seven years prior to 1904 being 131,085. The number brought to trial was even less than the corresponding total in 1904, viz., 85,145 as against 85,538. Under the Indian Penal Code 58,518 cases were returned as true, as against 58,259 in 1903. The total number of persons under trial increased from 153,471 to 156,145. Of these the cases of 149,783 were disposed of in the Courts of Magistrates and 3,649 in the Courts of Session. The percentage of convictions in the former was 49 and in the latter 69. The average number of days during which each case lasted was 9, as compared with 10 in 1903. The number of cases which were pending over six weeks, though large in some districts, showed, on the whole, an improvement on the previous year's returns. Out of 270,413 witnesses summoned in Magistrates' Courts, the number detained after the second day was 7,535, as against 7,915 in 1903. Seven hundred and forty-nine persons were fined for making frivolous and vexatious actions under section 250 of the Code of Criminal Procedure, or 167 more than in 1903, but in several districts the power given to magistrates by this section was still very little used.

Out of a total of 20,588 appeals and applications for revision, 8,713 were rejected, and in 9,222 the previous orders were confirmed. Trials by jury numbered 112, and the number of cases in which the Judge disagreed with the verdict and referred the case to the High Court was 4.

Oudh.

The number of cases brought to trial during the year in Oudh was 33,260, nearly 10 per cent. higher than the total for 1903. Courts of Session tried 521 original cases, an increase of 40 in comparison with the figures of the previous year. The percentage of convictions to the number of persons tried was 63 in sessions courts and 42 in magistrates courts.

As regards punishments, sentences of death and transportation fell from 47 and 139 to 39 and 105 respectively. The number of whippings was the same as in 1903, viz., 1,516. There was an increase in the sentences of imprisonment and fine.

The number of appellants and applicants for revision increased from 3,714 to 4,570. The percentage of failure was 69.

Punjab.

One hundred and eighty-two thousand eight hundred and forty-six offences were reported in the Punjab during the year, and 126,098 were returned as true. The number of cases brought to trial in Courts subordinate to Sessions Courts was 107,025, the number of persons involved being 248,883. These figures show an increase of about 8 per cent. in the number of cases and 7 per cent. in the number of persons brought to trial as compared with the corresponding figures for 1903, but the amount of serious crime diminished during the year. The percentage of convictions was 27, as in the preceding year.

Of the cases returned as true during the year, 87,467, or 72 per cent., were cases under the Indian Penal Code. Of these cases, those affecting life increased from 870 to 898, the number of murders being 409. On the other hand, the figures show a satisfactory diminution in serious crime against property.

District Magistrates disposed of 3,916 cases, as against 3,232 cases in 1903, and Honorary Magistrates also did good work. The number of disposals in the Sessions Courts rose from 381 to 529. The Chief Court, in the exercise of its original jurisdiction, tried two persons, both of whom were convicted.

The Chief Court confirmed the sentence of death passed upon 70 persons, commuted it in the case of 26, and acquitted 13 persons sent up under section 374, Criminal Procedure Code. The number of persons sentenced to solitary confinement fell from 7,363 to 6,997, while the number of persons whipped rose from 2,080 to 2,193. Forfeiture of property was ordered in 2 cases, as against 24 in 1903, and 4 in 1902.

Of the total number of persons convicted, 18,612, or 25 per cent., appealed —10,117 to District Magistrates, and 7,198 to Sessions Judges. Of these appeals 26 per cent. were summarily dismissed, and 36 per cent. dismissed after notice; while in the case of the remaining 38 per cent. the sentences were reduced, altered, or set aside, or the proceedings were quashed. CRIMINAL JUSTICE.

In the Chief Court the number of appeals instituted rose from 622 to 844, and disposals from 629 to 813, 165 cases being left pending at the end of the year. The number of appeals against acquittals was 24, as against 7 in 1903. Applications for revision increased from 1,648 to 1,882, disposals from 1,438 to 1,645, and the pending file rose by 27.

The total number of offences reported during the year in Burma was 87,132, as against 78,987 in 1903, an increase which was common to both parts of the Province, and occurred mainly in offences under special and local laws. The percentage of true cases fell slightly in Lower Burma to 89·7, and in Upper Burma remained practically the same as in 1903—namely, 88·3. Burma.

Magistrates of all classes disposed of 82,157 cases during the year. The average duration of cases in Lower Burma was 10 days, as in the preceding year; in Upper Burma it fell from 9 to 8 days. The percentage of persons convicted or committed was 62·2 in Lower and 63·3 in Upper Burma, both figures being the same as in 1903.

The Sessions Courts in Lower Burma dealt with 809 persons, fewer by 116 than in 1903. Capital sentences referred to the Chief Court for confirmation numbered 89, of which 63 were confirmed and 15 reversed. The average duration of trials in the Sessions Courts remained stationary at 53 days and rose in the Chief Court from 31 to 36 days. In Upper Burma, Sessions Judges disposed of 99 cases, as compared with 114 in 1903. The percentage of convictions increased slightly from 61·1 to 66·8, and the duration of trials fell from 44 to 39 days. Of 24 death sentences referred to the High Court, 18 were confirmed.

As regards punishments, the number of whippings fell to 2,863, while 85 and 415 persons were sentenced to death and transportation respectively.

In Lower Burma there was an increase of 350 in the number of appeals preferred. The percentage of sentences confirmed was 68·3 and the average duration of appeals was 16 days. The number of appeals preferred during the year in Upper Burma rose from 1,575 to 1,650. Sentences were confirmed in 64·5 per cent. of the cases, and the average duration was 12 days.

The number of cases called for in revision by District Magistrates in Lower Burma (5,697) was again greater than in the preceding year, and there was a considerable increase also in the revision cases called for by Sessions Judges. In Upper Burma also there was an increase in the quantity of revision work.

The total number of cases reported in the Central Provinces and the total number returned as true were, respectively, 25,825 and 21,907, as against 23,786 and 20,993 in 1903. Such an increase was natural, following as it did on the exceptionally low figures of 1903. Central Provinces.

The strength of the magistracy remained at 373 during the year. The percentage of convictions and committals among the 34,845 persons whose cases were disposed of was slightly over 50. There was a slight improvement in the average duration of police cases before the magistrates, which fell from 11 in 1903 to 10·3 in the year under review. The number of witnesses examined in Magisterial Courts was 72,067, of whom 6·6 per cent. were detained after the third day.

The four Courts of Session disposed of 128 cases, as against 132 in 1903. The percentage of convictions fell from 72·1 to 66·9, and the average duration of trials rose to 70 days.

The percentage of appellate cases in which the sentence was confirmed fell from 68 to 66·4 in the Judicial Commissioner's Court, from 74 to 72·8 in Sessions Courts, and in District Magistrates' Courts from 68 to 58·4. Twenty-seven sentences of death came before the Judicial Commissioner for confirmation; in 14 cases the sentence was confirmed, and six prisoners were acquitted.

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The sentences of death, transportation, and rigorous imprisonment passed by the Courts of Session numbered respectively 28, 75, and 57, as against 33, 56, and 64 in 1903. In Magistrates' Courts solitary confinement was ordered in 289 and whipping in addition to imprisonment in 97 cases.

Assam.

The judicial staff employed on criminal work in Assam consisted of two Session Judges, eight District Magistrates, 44 Stipendiary Magistrates, and 22 Honorary Magistrates. The offences reported to the Criminal Courts during the year numbered 30,936, including 22,797 under the Penal Code.

Including cases which were under inquiry at the close of the preceding year, 20,693 cases coming before the Courts were accepted as true during 1904. Of these, 14,648 were brought to trial. The figures, as compared with those of 1902, represent a decrease of 135 under the former and an increase of 54 under the latter head.

In the Courts of Magistrates, 14,479 cases were finally disposed of during the year, the proportion of convictions being 48·4 per cent. Courts of Session disposed of 173 cases, the pending file being reduced from 46 to 35. Of the 361 persons tried, 234 were convicted and 112 were discharged.

The High Court disposed of 69 appeals during the year, leaving eight pending at its close. Convictions were upheld in 50 cases and reversed in one. In appeals decided by the Courts of Session, the percentage of confirmations was 75, and in the Courts of District Magistrates 51·3.

North-West Frontier Province.

The total number of offences reported during the year in the North-West Frontier Province was the smallest reported since the creation of the province, viz., 17,959, as against 18,219 in 1903. Of these 74 per cent. were returned as true. The only district in the province in which there was any noticeable increase in offences reported was Bannu, where the increase occurred under cases of grievous and simple hurt. Complaints dismissed *in limine* numbered 4,712, or 26 per cent. of the cases reported. The number of cases brought to trial was 12,491, which represents 94 per cent. of the offences admitted to have occurred. Forty-seven per cent. of the persons tried were convicted. In cases brought to trial under the Indian Penal Code, which numbered 5,938, the percentage of persons convicted was 36. The number of murders has steadily decreased from 180 in 1902, and 172 in 1903, to 141 in the year under review.

The number of persons who appealed to District Magistrates rose from 627 to 728, while the number who appealed to Sessions Judges was 870, of whom 317 had their sentences reversed or altered.

Berar.

Although Berar is now under the administration of the Central Provinces, the statistics of judicial administration for the year 1904 were not amalgamated, and it will be convenient to deal with them separately. The number of offences reported in Berar during the year was 16,373, as compared with 15,859 in 1903, but the number of true cases (13,264) was slightly smaller than in the previous year. The total number of offences brought to trial rose from 13,668 to 13,791. The percentage of convictions among the persons whose cases were disposed of by Magistrates showed an unsatisfactory decrease from 45 to 29·4, while the percentage in Sessions Courts rose to 60. The average duration of proceedings before Magistrates rose from 8·9 days to 10·5 days, and that of Sessions trials from 43 to 52.

The sentences of death, of transportation, and of rigorous imprisonment passed by the Sessions Court numbered respectively 2, 45, and 13.

The number of appeals filed was 794, as against 525 in 1903. In 51 per cent. of cases the appeals were dismissed, an unsatisfactory decrease on the previous year's figure of 60. The Judicial Commissioner reversed 25·7 per cent., and the Sessions Judges 19·8 per cent.

Coorg.

The number of offences reported in Coorg (1,645) rose by 114, and the trials held numbered 1,435, or 105 more than in the previous year. As compared with the figures for 1903, trials were noticeably more frequent for the offences of causing hurt, mischief, cattle trespass, criminal intimidation, and insult. Excluding breach of contract cases, which were mostly compromised, the Criminal Courts dealt with 2,156 persons, of whom 28·5 per cent. were convicted. There were only 12 convictions of heinous crime; only one person was sentenced to death and none to transportation.

There was again a decrease in the total numbers of cases and appeals instituted during the year in Madras, excluding those in the Village Magistrates' Courts, the figures being 289,832 and 9,517 respectively, as against 292,955 and 9,533 in 1903. The number of cases instituted in the Village Magistrates' Courts, however, increased from 10,158 to 10,533. There was an increase of 5,035 in the number of offences under the Indian Penal Code, and a decrease of 9,837 in the number of offences under special and local laws reported during the year. Under the Penal Code the increase was mainly of cases of 'Criminal Force and Assault.' Under special and local laws the decrease was chiefly in offences under the Madras City Police Act. In regard to grave crimes, the number of offences affecting life was slightly greater than in the previous year; the only class of offences under the Penal Code which showed any noticeable decrease was that comprising "Offences affecting public health, &c." The percentage of convictions in cases brought to trial was 23·06 in the case of offences under the Penal Code, and 86·13 in the case of offences under special and local laws, the average percentages for the preceding five years being 25·66 and 86·21 respectively. The number of European British subjects brought to trial was 101, of whom 48 were convicted. CRIMINAL JUSTICE. Madras.

Of 17,340 persons tried in the Village Magistrates' Courts, 5,493 were convicted. In the regular Magistrates' Courts in the mufassal, 222,530 cases were instituted, as against 221,067 in 1903. The number of cases left pending at the end of the year was more than that of the previous year by 185. The total number of persons under trial in these Courts was 379,803, of whom 373,188 were dealt with, as against 368,273 in the preceding year, the percentage of convictions falling from 50 to 48·5. The number of sentences, alike of whipping, fine, and imprisonment, was less than in 1903. The number of appeals was 7,377; in 62·5 per cent. the convictions were confirmed.

The cases committed to Sessions Courts in the mufassal numbered 1,139, and 2,793 persons in all were tried, both figures being slightly lower than those for 1903. One thousand one hundred and seven persons were tried by jury, 1,260 with the aid of assessors, and 94 partly by jury and partly with assessors. There appears to have been a fairly general improvement in the working of the jury system. The percentage of convictions was 47·9. Appeals numbered 1,344, the sentence appealed against being confirmed in 70·63 per cent. of the cases.

The number of cases instituted before the Presidency Magistrates decreased from 70,720 to 66,120. The percentage of convictions was 89·93. A sum of £406 levied as fines in cases of cruelty to animals was paid to the S.P.C.A.

The High Court received for trial 43 Sessions cases, in which 52 persons were concerned. The percentage of convictions was 77, as against 65 in 1903. Twenty other cases and 84 death-sentences were also referred by the Sessions Judges to the High Court, the sentence of death being confirmed in 51 cases. The number of appeals received during the year was 720; in 81 per cent. of the total number of cases decided the proceedings of the lower Courts were not interfered with.

The total number of offences reported during the year in Bombay (including Sind) was 173,262, as against 162,843 in 1903. Of the total of cases, 148,445 were returned as true; of these 35 per cent. were under the India Penal Code and the rest under special and local laws. Cases brought to trial numbered in all 153,393, involving 256,846 persons, the figures being considerably greater than those for the preceding year. Two hundred and seven of the 564 cases affecting human life brought to trial during the year were murders, as compared with 197 out of 478 in 1903. Of the total number of persons under trial nearly 48 per cent. were acquitted or discharged, and nearly 43 per cent. were convicted. The total number of cases decided was 152,512, as against 138,133 in 1903. Of these 149,886 were disposed of by Magistrates. Of the total number of persons convicted, 66 per cent. were tried summarily, as against 62 per cent. in 1903 and 52 per cent. in 1902. The average duration of cases fell from 7·2 days to 4·3 days. There were 58 sentences of death and 160 of Bombay.

CRIMINAL JUSTICE.

transportation, as compared with 58 and 127 respectively in the preceding year. Whippings decreased in number from 2,025 to 1,337. The percentage of whippings to the total number of all punishments was 11·71, as against 16·45 in 1903. The number of Europeans brought to trial, mostly for minor offences, was 502, of whom 353 were convicted.

Out of a total of 5,585 appeals, 40 per cent. were rejected; in 31 per cent. the sentences were confirmed and in 24 per cent. reversed. Applications for revision numbered 2,241, the sentence being reduced in 146 cases, reversed in 153 cases, and enhanced in 51 cases.

Persons tried by jury and with the aid of assessors numbered 348 and 834 respectively. In the High Court the verdict of the jury was approved in all cases. In the Courts of Sessions the percentage of cases in which it was approved was 94, as against 88 in the preceding year. In cases tried with assessors, the Judge agreed with all or some of the assessors in 72 per cent. and differed from all in 28 per cent.

JAILS.

## JAILS.

The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| —— | 1904. | 1903. | 1902. | 1901. | 1900. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January | 93,881 | 101,664 | 108,741 | 115,059 | 109,406 |
| Admissions during the year | 436,569 | 440,948 | 471,529 | 487,374 | 586,895 |
| Aggregate | 530,450 | 542,612 | 580,270 | 602,433 | 696,301 |
| Discharged during the year from all causes | 436,668 | 448,984 | 478,532 | 493,693 | 581,281 |
| Jail population on 31st December | 93,782 | 93,865 | 101,738 | 108,740 | 115,020 |
| Convict population on 1st January | 85,209 | 93,682 | 98,873 | 105,047 | 97,196 |
| Admissions during the year | 153,380 | 156,112 | 171,256 | 176,568 | 207,437 |
| Aggregate | 238,589 | 249,794 | 270,129 | 281,615 | 304,733 |
| Released during the year | 150,289 | 160,503 | 172,202 | 178,362 | 194,924 |
| Casualties, &c. | 3,260 | 4,082 | 4,167 | 4,381 | 4,796 |
| Convict population on 31st December | 85,040 | 85,209 | 97,760 | 98,872 | 105,013 |

The total number of prisoners (436,569), including those under trial, admitted to jail during the year was about one per cent. less than in 1903. The largest decreases in admission, occurred in Coorg (21 per cent.), the N.W. Frontier Province (13·5 per cent.), Punjab (7·4 per cent.), and Bengal (2·6 per cent.), and the largest increase was in the Central Provinces (9·3 per cent.). The total daily average population rose from 93,093 to 94,474 (an increase of 1·5 per cent.), the variation from the previous year's figures being very small in all provinces.

One hundred and fifty-three thousand three hundred and eighty convicts were admitted during the year, as against 156,112 in 1903. The offences for which convicts were imprisoned show that the cases connected with property diminished by about 5 per cent., that those against the person increased inappreciably (less than 1 per cent.), and that convictions under the preventive sections of the Criminal Procedure Code decreased by 1·3 per cent.

During the year 76 prisoners escaped, compared with 98 in 1903, but 50 were recaptured before the end of the year, leaving 26 still at large. Escapes were most frequent from the jails of Madras, where they numbered 24, Assam coming next with 14. The number of escapes in the United Provinces (3) was the smallest on record.

One thousand and twenty-one juvenile offenders were admitted during the year, as against 1,060 in the previous year, but the percentage to total admissions remained practically unchanged.

Fifty-three per cent. of the persons admitted to jail came from the classes engaged in agriculture and in the care of animals. Nineteen per cent. were

persons employed in miscellaneous callings, and 10 per cent. gained their living by personal service.

The number of persons imprisoned during the year who had been previously convicted fell from 20,901 to 20,031, the proportion to total admissions remaining much the same. The tendency of the Courts to inflict more deterrent punishments was maintained, and there was a marked increase in sentences of transportation.

Satisfactory progress was reported in Madras, the Punjab, and Burma in the identification of habitual prisoners before admission.

As in the preceding year, the great majority of prison offences committed related to work, under which 54·9 of the offences reported were returned. The ratio of punishments to the total daily average population fell by 3·77 per cent. Increases occurred in Bombay, the Punjab, Coorg, and the N.W. Frontier Province, and the most marked decrease (31 per cent.) took place in Burma. The figures for the different provinces are given in the following table:—

| | 1904. | | | 1903. | | | 1902. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras - - | 9,272 | 15 | 14,331 | 8,899 | 19 | 15,256 | 10,702 | 15 | 14,819 |
| Bombay - - | 7,907 | 23 | 12,978 | 7,915 | 36 | 9,297 | 10,053 | 20 | 10,110 |
| Bengal - - | 18,002 | 22 | 30,928 | 17,476 | 40 | 31,828 | 19,636 | 29 | 34,458 |
| United Provinces | 22,090 | 14 | 35,281 | 21,345 | 11 | 38,763 | 26,038 | 20 | 42,963 |
| Punjab - - | 10,752 | 89 | 42,047 | 11,199 | 91 | 38,837 | 11,928 | 84 | 38,591 |
| Burma - - | 11,113 | 41 | 41,241 | 10,672 | 50 | 42,863 | 11,076 | 58 | 38,643 |
| Central Provinces | 3,553 | 21 | 8,710 | 3,789 | 26 | 9,538 | 3,870 | 20 | 5,476 |
| Assam - - | 1,430 | 21 | 2,054 | 1,296 | 34 | 1,929 | 1,362 | 19 | 1,699 |
| North-West Frontier Province. | 1,055 | 1 | 1,501 | 971 | 1 | 1,206 | 893 | 4 | 1,500 |
| Coorg - - | 62 | 1 | 85 | 64 | 2 | 60 | 62 | — | 69 |
| Hyderabad Assigned Districts. | 1,087 | 3 | 620 | — | — | — | 1,087 | 2 | 620 |
| | 85,235 | 248 | 190,156 | 83,626 | 310 | 189,577 | 96,707 | 271 | 188,948 |

The aggregate number of corporal punishments tends steadily to decline. The total fell from 1,109 in 1903, to 1,076 in 1904, but the proportion to total punishments did not vary as a whole from the previous year. Coorg alone showed a marked difference, there being an increase of 5·44. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 9,660, of which no fewer than 6,138 cases occurred in Burma.

The treatment of habitual criminals, and their separation from casual offenders, received careful attention, and considerable progress was made in their direction in all the provinces.

The number of convicts who came under the mark system increased to 31,223 from 29,896 in the previous year, but the difference in the ratio was less than 1 per cent. on the average convict population. Opinions continue to differ as to the merits of the system. In some provinces it is said that convicts are fully alive to its benefits; in others it is urged that the rules involve a great amount of clerical labour, that the advantages are too remote to appeal to long-term prisoners, and that marks are granted as a matter of routine for merely passive good conduct.

The net cost of maintenance per head of average strength fell from £3 8*s*. 10*d*. to £3 6*s*. 2*d*., which is lower than it has been during the last five years. The gross cost of maintenance per head varied from £8 6*s*. 8*d*. in Coorg to £3 6*s*. 8*d*. in the United Provinces; on the other hand the cash earnings per head were highest in Coorg, being £6 as

JAILS. against the provincial average of £1, so that the net cost was £2 6*s.* 8*d.* as compared with £2 14*s.* 8*d.* in Burma, £2 16*s.* in the United Provinces and £3 in Bombay. The greatest improvement on the figures of the preceding year was displayed in the Bombay returns, where the net cost per head decreased by £1 4*s.* In Assam and the Central Provinces prisoners cost the Government more to maintain than elsewhere, the rates being £5 6*s.* 8*d.* and £4 13*s.* 4*d.* per head. The net cash earnings per head in Assam were only 10*d.*, the next lowest rate being 10*s.* 2*d.* in the N.W. Frontier Province.

Although the epidemic of plague continued to extend, the public health was generally good; in the jails improvements in sanitation were maintained and medical treatment was successful, with the result that out of a total daily average population of 90,353 prisoners in India and Burma, there were only 61,069 admissions to hospital, and 1,591 deaths, the rates for admission (676 per mille), cases of constant sickness (28), and death (17·01) being the lowest hitherto recorded. In only one province (Assam) did the death-rate reach 20 per thousand, and in three provinces—Bengal, the United Provinces, and the Central Provinces—the death-rates were the lowest in the history of the respective administrations. In spite of the greatly increased prevalence of plague among the general population, only 37 cases and 24 deaths were reported from the jails. Cholera accounted for 47 cases, with 31 deaths, as compared with 97 and 57 respectively in 1903. Cerebro-spinal fever continued to decline, and there were only 23 cases and 18 deaths, as compared with 34 cases and 27 deaths in the previous year.

**Penal Settlement at Port Blair.**

The report on the penal settlement at Port Blair for 1904–05 has not been received in time for inclusion, and the account given in last year's Statement, respecting the year 1903–04 is therefore repeated. The number of convicts remaining in the settlement at the end of that year under review was 13,906, as against 12,724 at the end of the previous year, and there was an increase from 12,922 to 13,326 in the average daily strength. There were 113 releases under the twenty years' rule, and 1,908 convicts were received during the year. The number of jail offences, most of which were of a petty nature, rose slightly to 2,619, and punishments were more numerous in proportion. Sixty-six convicts escaped during the year, as against 57 in the previous year. Of these 45 were recaptured.

The receipts of the settlement during 1903–04 amounted to £53,821, as compared with £45,927 in 1902–03, and the expenditure rose from £125,138 to £136,639. The net cost of each convict increased from £6 2*s.* 2*d.* to £6 4*s.* 3*d.*

There were 19 English looms at work in the female jail at the end of the year, and 4,000 more suits of cotton clothing were turned out than in the previous year. The land under tea cultivation was 505 acres, and the tea manufactured amounted to 153,496 lbs., or 12,296 lbs. less than the out-turn of the previous year. The decrease was attributed mainly to unfavourable weather at the commencement of the year, and to an inadequate supply of labour.

The general health of the settlement was on the whole better than in the previous year. The rainfall was 116 inches, as compared with 138 inches in 1902–03. Although there was an increase in the number of admissions for fever, mortality from that disease showed a satisfactory decline. Dysentery showed a falling-off in admissions and deaths, but there was not a marked decrease either in the admissions or in the death-rate from phthisis.

## CIVIL JUSTICE.

**CIVIL JUSTICE, Bengal.**

The number of civil suits pending on the original side of the High Court at the end of 1903 was 1,674, including 62 pending suits received by transfer from other Courts, and the number instituted during 1904 was 981. During the year 1,396 suits were disposed of, as against 971 in 1903, and the pending file fell to 1,259. There were 573 suits pending for over one year, showing a decrease of 392 from the figures of the previous year. The number of insolvency cases pending at the end of the year decreased from 190 to 185.

CIVIL JUSTICE.

In the Civil Courts in the mufassal, the total number of ordinary suits and small causes instituted was 710,272. This number is considerably the largest on record, being 41,918 in excess of the figures for 1903. Since the year 1885, when the total number of institutions was 434,912, the upward tendency has been continuous, and the present figure represents an increase of more than 63 per cent. over the total institutions of that year. The increase occurred in each class of suits, those for money and movables, rent suits, and title suits showing increases of 8, 5·3, and 3·6 per cent. respectively over the figures for 1903. The number of suits disposed of was 723,853, a figure which is also in excess of that for any previous year. Considerable improvement in the average duration of cases was effected in the case of both District and Subordinate Judges.

In the Presidency Small Cause Court, both institutions and disposals showed an increase on the previous year's figures. The number of pending cases was practically the same as in 1903.

The arrears of appeals continued to be very heavy, but a substantial reduction was effected by the High Court, in spite of a considerable increase in the number of appeals preferred (4,348); the number of cases disposed of was 4,755, as against 3,873 in 1903, and the pending file fell from 7,340 to 6,933. An additional Judge of the High Court assisted the Court from June to the end of the year, and full use was made of his services. In the Subordinate Courts, 21,696 appeals were instituted, a number in excess of that for any previous year, and 23,993 were disposed of. The number of appeals pending at the close of the year (11,485) was less by 1,619 than at the end of 1903.

North-Western Provinces.

Institutions of civil cases in the North-Western Provinces increased from 90,548 in 1903 to 92,035 in 1904. The provincial total was higher than it has been since 1900, the average for the past six years being 90,691.

The total number of suits before the Subordinate Courts was 104,617; the pending file at the close of the year had advanced by 751 to 10,454, and the number of cases pending over three months by 550 to 3,043. The number of contested cases was 28,668, as compared with 27,728 in 1903, and their average duration was 121 days.

There were 12,994 appeals before the Subordinate Courts during the year, as compared with 12,391 in 1903, and the year closed with a pending file of 3,475 cases. Before the High Court there were 3,774 appeals for disposal, as against 3,567 in 1903. Of these 1,632 were disposed of, and the pending file rose to 2,142, which represents, on a rough calculation, two years' work.

The number of applications for execution of decrees filed during the year was 86,431, representing a decrease of about 2,000 over the figures of the preceding year. Disposals were satisfactory, the pending file at the end of the year being reduced from 12,074 to 11,254. Realisation was complete in 20,246 cases, and partial in 16,903, while 48,649 applications were wholly infructuous. The percentage of fructuous applications to the total number of applications disposed of was 41.

Village Munsifs decided 10,562 cases out of a total of 11,717 for disposal. Of these 917, or 9 per cent., were contested cases, as compared with 7 per cent. in 1903.

Oudh.

The total number of suits instituted in Oudh rose from 46,841 to 51,754. Though there was more work to be done, the pending file was reduced by 1,694 cases. The average duration of cases also showed some reduction, the figures of 1904 being 87 days for contested and 34 days for uncontested suits. The number of appeals before the courts increased by more than 200, but the pending file at the close of the year showed a reduction of 400. The Judicial Commissioner's Court decided 1,123 appeals from decrees and left 371 pending. Village munsifs were working in four districts, and they had to dispose of 5,722 suits, as compared with only 238 in the preceding year. There were 4,470 suits in Fyzabad and 1,097 in Lucknow. Two new honorary munsifs were appointed during the year, the number being therefore 19. They disposed of 2,386 cases, as compared with 1,750 in 1903. The number of contested cases was 482.

CIVIL JUSTICE. Punjab.

There was a further decrease of 4,461 in the total number of suits instituted in Civil Courts in the Punjab (210,145). The steady decrease in the volume of civil litigation was ascribed mainly to the prevalence of plague and to the extension of the period of limitation for suits for the recovery of money lent. The decrease was entirely due to the fall in institutions of suits for the recovery of money or movable property; every other class of suit showed an increase. The total number of suits brought by money-lenders against agriculturists again fell, from 93,900 to 86,646, while suits to establish rights of pre-emption showed a general and substantial increase.

Out of 253,252 suits for disposal in District Courts, 231,981 were decided. As compared with 1903 there was a rise of 2,367 in the number of disposals, and the pending file was reduced by 7,866. The average durations of contested and uncontested cases were 52 and 30 days respectively, as against 50 and 30 days in the previous year. The variation in the former figure was ascribed to the difficulty experienced in securing the attendance of litigants, owing to plague, and to the greater average value of the suits instituted.

The percentage of appeals to appealable orders rose from 23 to 24. In Divisional Courts 7,436 appeals were instituted, an increase of nearly 1,000, and the pending file rose by 608 to 2,596. In 58 per cent. of the cases the orders of the lower Courts were upheld. In District Courts appeals fell from 6,048 to 5,909, and the pending file decreased from 565 to 492. The percentage of confirmations was 55.

In the Chief Court, 9 original cases, 821 appeals from decrees, and 342 appeals from orders were instituted during the year; there were also 2,230 applications for revision and 548 miscellaneous cases. The number of disposals was 897, or 60 more than in 1903, but in spite of this the pending file rose by 266, and at the end of the year stood at the high figure of 2,077. It has recently been decided that the fifth Judge of the Court should be made permanent, and that four extra Judges should be temporarily added to the Court, in order to clear off the arrears of work that have accumulated.

Burma.

In the Burma Civil Courts there was a considerable increase in the volume of original litigation. The total number of suits instituted rose from 68,656 to 72,424, the increase being common to both sections of the province. The general increase in litigation was considered to be normal, and to be due to the growth of trade and population. The number of cases disposed of during the year was 71,900, as compared with 69,127 in 1903. Of this number 21,230 were contested. There was a general decrease in the average duration of cases, but the number of cases left pending at the end of 1904 was 6,109, as against 5,113 at the end of 1903.

The total number of regular appeals rose slightly to 5,504, of which 866 were pending at the close of the year. Decrees of lower Courts in Lower Burma were confirmed, on appeal to District Courts, in 62 per cent. of cases, modified in 6 per cent., and reversed in 29 per cent., the figures showing little variation from those of 1903. Out of 1,410 appeals disposed of in District Courts in Upper Burma 62 per cent. were confirmed, as in the previous year. In Divisional Courts in Lower Burma the decrees were confirmed in 75 per cent. of the cases. In Upper Burma, only 15 appeals came before Divisional Judges, previous orders being confirmed in 10 of the cases. The Chief Court disposed of 312 appeals, as against 274 in 1903. Decrees of lower Courts were confirmed in 68 per cent. of the cases.

Applications for execution of decrees rose in Lower Burma from 25,658 to 28,050, and in Upper Burma from 8,814 to 9,624.

The new superior and subordinate Judicial Services were introduced into Lower Burma after the close of the year under review.

Central Provinces.

The number of suits instituted in the Central Provinces amounted to 79,455, as compared with 75,933 in 1903, and 80,681 in 1902. The reasons for the variation are not clear; contrary to the experience of the previous year, there was an increase in the number of suits of small value, and a decrease in those of higher value. The number of cases disposed of was 78,324, and the pending file rose by more than 1,000 to 13,640. The average duration of contested cases fell from 114 days to 105 days, and that of uncontested cases from 59 to 53 days.

CIVIL JUSTICE.

There was an increase in the number of appeals instituted, but disposals failed to keep pace with the increase, and there was a rise in the number of cases left pending at the close of the year. In the Court of the Judicial Commissioner 496 regular second appeals were disposed of, as against 280 in 1903, but the pending file rose from 207 to 224. Divisional Judges disposed of 315 cases, as compared with 395 in the previous year, and the number pending rose by 4 to 194. The District Appellate Courts had before them 4,795 appeals, and disposed of 4,085, the corresponding figures for 1903 being 4,855 and 4,084 respectively.

Applications for execution of decrees numbered 80,550, as compared with 80,974 in 1903. Of the applications disposed of, 56 per cent. were wholly infructuous, and in 20·4 per cent. satisfaction was obtained in full.

The new Central Provinces Courts Act came into effect on the 1st February 1904.

Assam.

The number of original suits instituted during the year in Assam was 31,706, an increase of 1,637 on the figure of 1903. The increase in the number of suits instituted in Sylhet, the Assam Valley Districts, and Cachar mainly accounts for the provincial increase. Altogether there were 38,825 suits for disposal, and 32,584 were disposed of. This number was 2,047 more than the total disposed of in the previous year, the number of cases disposed of in Sylhet rising by 1,463. The pending file fell from 5,352 to 5,188.

In the High Court 134 appeals were preferred during the year, as against 196 in 1903. Two hundred and twenty-one were disposed of, and the pending file fell from 295 to 208. Previous orders were confirmed in 51 cases, and reversed in 3. In Subordinate Courts 1,058 appeals were instituted, and 1,243 disposed of, the pending file being reduced from 882 to 712. Of 1,159 appeals decided after hearing, the decisions of the lower Courts were affirmed in 66·4 per cent., and reversed in 19·3 per cent.

The number of applications for execution of decrees disposed of was 17,896, full satisfaction being obtained in 2,824 and partial satisfaction in 4,056 cases.

North-West Frontier Province.

The suits instituted in the North-West Frontier Province during 1904 numbered 21,075, as against 19,325 in the previous year. The litigiousness of the inhabitants of Bannu continues steadily to increase. Institutions per ten thousand of the population in that district have risen from 152 in 1902 to 173 in 1904. In Dera Ismail Khan the proportion fell considerably, but in Hazara there was an extraordinary leap from 57 to 86 institutions per ten thousand of the population during the year under review.

Of the 24,532 suits for disposal in the District Courts, 22,624 were decided, an increase of 1,526 on the figure for 1903. The average duration of suits in the province fell from 40 to 35 days in contested cases, while that of uncontested suits remained stationary at 22.

District Judges and Subordinate Judges with appellate powers disposed of 645 appeals, as against 486 in 1903. Divisional Courts disposed of 851 regular appeals, or 100 less than in the previous year. Of these no fewer than 613 were disposed of in the Peshawar Divisional Court. Applications for the execution of decrees numbered 17,125, as against 14,424 in 1903; 31 per cent. of the applications were satisfied in full, and 17 per cent. were partially executed.

Berar.

The number of suits instituted in Berar during the year was 18,829, as against 20,538 in 1903. The decrease was common to all districts, and plague and agricultural prosperity were considered to be the main causes. It appears probable also that the institution of many suits was postponed pending definite orders concerning the amalgamation of the judicial systems of the Central Provinces and Berar. There were in all 26,825 suits for disposal, as compared with 29,416 in the preceding year, but only 19,404, or 2,524 less than in 1903, were disposed of, with the result that the pending file at the end of the year stood at 7,421, or only 67 less than at its commencement. The average duration of contested cases rose further from 235·6 to 241·2 days.

CIVIL JUSTICE.

As regards appeals, the number of cases for disposal and the number actually disposed of were lower than in 1903, both in the Judicial Commissioner's Court and in the Court of the Civil and Sessions Judge. The average duration of cases increased in each Court.

Of 29,365 applications for execution of decrees, 23,850 were disposed of, and the pending file rose from 5,447 to 5,515. The proportion of wholly infructuous applications was 71·6 per cent.

Coorg.

The number of Civil Courts in Coorg was five, as in 1903. The total number of institutions declined from 1,511 to 1,484. The total number of suits decided (1,519) was slightly larger than in the previous year, and the pending file was reduced to 178 at the end of the year, as against 213 at its commencement. Of 41 appeals disposed of during the year, in 32 the decisions of the Courts below were confirmed and in 3 reversed. Execution proceedings (2,699) were 44 more than in 1903; the proportion of wholly infructuous applications continued to be very high (72·4 per cent.), although the amount realised in execution (£5,529) was considerably greater than in 1903.

Madras.

The year was marked in Madras by a considerable increase in the volume of litigation, which was generally distributed thoroughout the Presidency, and for which no particular reason can be assigned. The total number of suits instituted was 334,341, or 11,443 more than in 1903. The number of appeals preferred was 12,419—83 more than in 1903. In spite of the increase in the number of suits instituted, the amount involved in original litigation during the year fell from £8,246,666 to £2,670,266. This variation only marks a return to the normal after the abnormally high figure of 1903. In Village, Revenue, District Munsifs', Subordinate Judges', and District Courts the pending files were reduced, and arrears increased only in the Agency Court and in the Presidency Court of Small Causes.

Before Village Courts 82,478 suits were instituted, an increase of more than 4,000 on 1903, and 82,831 were disposed of. Out of 105,752 ordinary suits and 133,648 small causes for disposal (of which 79,687 and 122,626 respectively were instituted during the year) District Munsifs disposed of 81,362 and 124,544 respectively, as against 76,361 and 117,404 in 1903. In Subordinate Judges' Courts the numbers of ordinary suits and small causes disposed of were respectively 1,049 and 20,483, as compared with 869 and 17,353 in the previous year. In District Courts the numbers were 479 and 648, the figures for 1903 being 434 and 586 respectively.

In the High Court an increase of 33 in the number of suits instituted (251) was accompanied by a rise of 58 in the number disposed of (233), and 173 cases were pending at the end of the year. The average duration of contested suits was 180 days, of uncontested 41 days. The number of appeals of all kinds preferred to the High Court was 2,360. Two hundred and eighty-eight first appeals and 2,632 second appeals were disposed of during the year. The arrears of second appeals were considerably reduced.

Bombay.

In the Bombay Presidency (including Sind) the total number of suits instituted showed a decrease from 182,971 to 165,111, which was attributed partly to plague and partly to the agricultural depression caused by locusts and deficient rainfall. Of these, 76 per cent. were for money or movable property, and 17 per cent. related to immovable property, all other suits totalling 7 per cent. The percentage of contested suits was 32, as against 30 in 1903. There was much improvement in the average duration of uncontested suits, it being 76 as against 89 days on the preceding year. But the duration of contested suits rose from 163 to 252 days. The total number of suits disposed of was 169,009, as against 184,003 in 1903, and arrears decreased from 38,677 to 34,935.

Including arrears from the previous year to the number of 3,798, there were 8,527 appeals before the Courts, of which 5,263 were decided, the pending file being thus reduced to 3,258. In 2,744 cases the decrees of the lower Courts were confirmed, while 908 were not prosecuted or were dismissed. The average duration of appeals rose from 240 to 296 days.

Applications for execution of decrees numbered 183,443, and 188,332 were disposed of, arrears decreasing from 54,824 to 49,935. Excluding 2,600 applications disposed of by transfer, or under the Dakhan Agriculturists' Relief Act, 67 per cent. of the applications proved wholly infructuous; full satisfaction was obtained in 14 per cent. of the cases, partial satisfaction in the remainder. The total amount recovered in execution rose from £337,485 to £409,066. The number of persons imprisoned in process of execution was 846, as against 895 in 1903. CIVIL JUSTICE.

The total number of applications for declaration of insolvency disposed of during the year was 209, in addition to 96 applications transferred or withdrawn. The applications were granted in 48 per cent. of the cases and rejected in 52 per cent.

# CHAPTER IV.

## REGISTRATION OF ASSURANCES, &c.

REGISTRATION.

REGISTRATION.

General.

The Registration Law of 1877 was in force during the year under review throughout British India, with the exception of Upper Burma, for which Regulation II. of 1897 still provides a less complete procedure, and of certain other tracts in which the conditions are exceptional. For the purpose of registration, documents are divided into (*a*) those of which registration is compulsory, or necessary to the validity of the deed, and (*b*) those which are not required by the law to be registered, but which can be so treated or not at the option of the holder, though liable, if unregistered, to be superseded by subsequent registered documents, subject to the equitable doctrine of notice. In the former class are deeds of gift of immovable property, or other documents, excluding wills, which affect rights in such property of value more than Rs. 100, and, with certain exceptions, annual or longer leases. In the second category, that of optionally registrable documents, are those relating to immovable property not included in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As concerns transfers of immovable property, however, the situation is affected in most provinces by the Transfer of Property Act of 1882. This Act was amended in March 1904. Before that date it was in force throughout British India, with the exception of Burma (outside Rangoon), the Punjab, and Sind, and other scheduled districts; and under its provisions all transfers by sale or mortgage of immovable property had to be registered, excepting that in the case of tangible immovable property of value below Rs. 100 transfer might alternatively be effected by delivery of the property and the registration of mortgage deeds for such small sums was not compulsory. The most important changes effected by the amendment of the Act were the removal of the last exception, namely, that relating to small mortgage deeds, and a wider extension of the Act in Lower Burma. Practically all deeds transferring immovable property have now, therefore, to be registered, and the question as to the supersession of an unregistered by a registered deed will cease to cause difficulties in the law courts. Offices are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. The total registration receipts of the year 1904–05 were £338,700 as compared with £326,900 in the preceding year; and the cost of the registration offices was £180,900, leaving a surplus of £157,800, against £149,100 in the year 1903–04.

Bengal.

There was in the year 1904 a small increase in the total number of deeds registered in Bengal from 1,448,000 to 1,454,000. The number of registrations of immovable property under the compulsory classes is given as 987,600, but this does not include the small mortgages and leases which were added to the compulsory class by the Act of 1904. The Act came into force after the beginning of the calendar year, and the change in classification was not therefore made in this year's returns. Sales of immovable property showed a small decrease, numbering 396,800. The value of the immovable property affected by the registrations under the compulsory classes was £13,262,000, of which more than one quarter was contributed by the comparatively small number of deeds (3,870) registered in Calcutta.

United Provinces.

The number of documents registered in the United Provinces rose from 198,200 to 207,500 in the year 1904, of which 168,600 affected immovable property. The number of registered sales of such property rose from 43,900 to 45,100, and that of mortgages from 71,800 to 74,100; but the most notable increase was in leases for a term, owing to revision of settlements, &c. in Gorakhpur and Gonda districts. The value of the immovable property affected by the deeds registered was £6,986,000. The value of all classes of property affected by all deeds registered during the year was £7,687,000.

REGISTRATION.

There has been a gradual recovery in the Punjab during the last three years as regards registrations under the compulsory classes, the number of sales registered in 1904 being 22,800, that of mortgages 30,700. This indicates a revival of business from the effect of the passing of the Alienation of Land Act, a revival which had begun in the later months of 1902. But the number of optional registrations continued to decline. Including the optional classes, registrations of deeds affecting immovable property numbered 69,200, with a total value of £2,651,000. The total value of all classes of property transferred under the documents registered was £2,781,000. The better comprehension of the Alienation of Land Act appears to be responsible for the increased number of registrations, but a further acquaintance with the provisions of the Act is still to be desired among the people.

Punjab.

The number of registrations in Lower Burma increased from 33,400 to 36,400, the increase occurring for the most part in deeds of which registration is compulsory. The aggregate value of immovable property affected was £4,992,600, having increased in even greater proportion than the number of deeds. Increased wealth among the trading classes, and the influx of capital from India seeking investment, are perhaps the causes of the higher prices of land, which are specially notable in and around Rangoon. The most important difference between the registration laws of Upper and Lower Burma was removed by the extension of certain sections of the Transfer of Property Act to the whole of Lower Burma. The deeds affecting immovable property registered in Upper Burma increased by 10 per cent. as compared with the previous year, and the value of the property affected was higher, amounting to £460,000.

Burma.

Registration work in Berar was transferred during 1904 to the control of the Inspector-General of Registration in the Central Provinces. The number of registrations in the combined provinces rose from 52,400 to 56,800, of which 34,800 were made in Berar. The number of registrations relating to immovable property under the compulsory heads, which fell considerably in the Central Provinces in the previous year, recovered in 1904, the value of the property affected showing a still greater rise. The average value affected by each transaction has been rising of late years in both provinces. The figures are held to indicate the return of prosperity and the increasing value of land.

Central Provinces and Berar.

In Assam 55,800 documents were registered, or rather more than the total of the preceding year; 75 per cent. of the registrations occurred in the Sylhet district; 47,400 of the deeds related to transactions affecting immovable property, which were rather more numerous than in the previous year. The aggregate value of property affected by the deeds registered was £613,700, of which £457,700 related to immovable property. On the whole, though the year under report showed no notable increase, the volume of registration in Assam has been growing rapidly in recent years.

Assam.

In Madras the number of registrations rose from 943,400 to 986,600, practically all the increase occurring in documents affecting immovable property. The number of registered sales of land was 349,300, or rather more than in the preceding year; of that number nearly half affected land worth less than Rs. 100. The number of other deeds affecting immovable property was higher than in the previous year, while those relating to movable property, which are comparatively few in number, also showed some increase. The value represented by the registered sales and mortgages of immovable property amounted to £10,578,000, by other deeds affecting such property £3,468,000, and by deeds affecting movable property £649,300.

Madras.

The number of registrations in Bombay was 177,300, or nearly 10 per cent. more than in 1903. The increase is generally attributed to a better harvest and a partial return to prosperity after a cycle of unfavourable years. Since 1896, when the period of plague and famine began, there had been an almost unbroken series of declines in the number of registrations. Registered deeds of sale or exchange and mortgages of immovable property numbered 76,000 and 52,000 respectively, against 68,100 and 50,600 in the previous year; it has been remarked that there has been a tendency in recent years for sales to be substituted for mortgages in the presidency. The average value of all deeds transferring land was higher than in the preceding year,

Bombay.

REGISTRATION.

and the aggregate value represented by such deeds was £7,103,000. Deeds affecting movable property showed an increase in numbers, but a great fall in average value.

Under the special law for the protection of agriculturists in the four Deccan districts of Poona, Satara, Ahmednagar, and Sholapur, there were 97,900 registrations, which was more than 7 per cent. above the total of the previous year. Sales, leases, and mortgages of agricultural land all shared in the rise, but the figures are far lower than have been known in many previous years. The aggregate value of property concerned in these special registrations was £343,000.

## JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES.

The Report on Joint Stock Companies for 1904–05 for the whole of India shows that the number of new joint stock companies registered was 141, with a nominal capital of £2,376,400 and a paid-up capital of £449,400; while 79 companies, with a paid-up capital of £1,274,100, ceased to work. On the other hand, the paid-up capital of 480 companies was increased by an aggregate amount of £1,291,500, while 83 companies reduced their paid-up capital by £114,500 in all. The net result was that at the end of the year there were in operation 1,550 companies, with a nominal capital of £37,921,600 and a paid-up capital of £26,848,300, which is 3·9 per cent. larger than the figure for 1903–04. The companies are most important in the provinces of Bengal and Bombay, which possess 41 and 39 per cent. respectively of all the paid-up capital; in Madras the number of companies (468) was larger than in either of the two former provinces, but the paid-up capital constituted only about 8 per cent. of the whole; in the United Provinces the paid-up capital of the 89 companies aggregated 5 per cent. of the whole; in no other province did the aggregate paid-up capital of registered companies reach £700,000. The Bombay companies are, taking the figures as they stand, the richest, the average of paid-up capital for the 342 companies in that presidency being £30,400; while for the 429 companies of Bengal it is £25,800, for the 468 of Madras £4,700, and for the 89 of the United Provinces £15,300. The average in Bengal has risen much in recent years, owing to the extinction of most of the native provident societies with practically no paid-up capital, but it showed a decline in 1904–05. There was also a small decline in Bombay. The distribution of paid-up capital among registered companies for different classes of industry was as follows :—

| | Paid-up Capital. | | Paid-up Capital. |
|---|---|---|---|
| | £ | | £ |
| Banking and insurance - | 2,813,300 | Mills and presses - - | 13,053,000 |
| Trading and shipping - | 5,564,600 | Tea and planting - - | 2,404,000 |
| Mining and quarrying - | 1,893,000 | Other industries - - | 1,117,700 |

The group of companies with the largest aggregate subscribed capital, £13,053,000, constituting nearly half of the total paid-up capital, were for weaving and spinning or for pressing cotton, jute, wool, and silk; and nearly 56 per cent. of the capital of such undertakings belonged to the Bombay Presidency. In the 16 years from 1889–90 to 1904–05 the number of joint stock companies at work has risen from 886 to 1,550, and the paid-up capital has risen from $15\frac{3}{4}$ to $26\frac{7}{8}$ millions of pounds.

## PATENTS AND DESIGNS.

PATENTS.

The total number of applications filed in 1904 for the registration of inventions under the Patents Law was 552, or 16 more than in the preceding year. Of these, 43 were refused or abandoned, and 84 were undecided at the end of the year. Sixty-seven only of the applications were made by natives of India, 135 by Europeans and others resident in India, and 350 by other persons. The number of specifications filed during the year was 468, or 24 more than in the preceding year. As regards designs, the number of exclusive privileges kept alive by payment of the prescribed fees was 542. There were 32 applications for the registration of designs, of which 3 were rejected.

# CHAPTER V.



## FINANCE.

### FORM OF ACCOUNTS.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee, and that the Government is under obligations to carry out certain transactions with railway companies at fixed rates differing from the rate of sixteenpence to the rupee, are included in a single line under the head of Exchange.

### GROSS REVENUE AND EXPENDITURE.

Gross Revenue and Expenditure.

The gross revenue and expenditure of British India in 1903–04 and 1904–05 were as follows:—

| | 1903–04. | 1904–05. |
|---|---|---|
| | £ | £ |
| Revenue - - - - | 83,756,155 | 84,812,971 |
| Expenditure - - - - | 80,759,755 | 81,356,905 |
| Surplus - - £ | 2,996,400 | 3,456,066 |

The gross revenue includes all receipts, and the gross expenditure all payments. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which certain charges of revenue-earning departments are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

FINANCE.

Net Revenue and Expenditure.

## NET REVENUE.*

| | 1903–04. | | 1904–05. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c.: | | | | | | |
| Land Revenue | 18,508,738 | | 18,226,402 | | − *282,336* | |
| Forest | 1,477,393 | | 1,599,162 | | + 121,769 | |
| Tributes from Native States | 410,827 | | 421,303 | | + 10,476 | |
| | | 20,396,958 | | 20,246,867 | | − *150,091* |
| Opium: Net Receipts | — | 3,506,178 | — | 4,050,999 | — | + 544,821 |
| Taxation: | | | | | | |
| Salt | 4,981,704 | | 5,093,466 | | + 111,762 | |
| Stamps | 3,538,237 | | 3,697,102 | | + 158,865 | |
| Excise | 4,932,500 | | 5,306,198 | | + 373,698 | |
| Provincial Rates | 2,821,967 | | 2,820,358 | | − *1,609* | |
| Customs | 3,839,066 | | 4,267,032 | | + 427,966 | |
| Assessed Taxes | 1,206,636 | | 1,263,098 | | + 56,462 | |
| Registration | 326,041 | | 337,921 | | + 11,880 | |
| | | 21,646,151 | | 22,785,175 | | +1,139,024 |
| Commercial Undertakings: | | | | | | |
| Post Office | 103,929 | | 56,167 | | − *47,762* | |
| Telegraph | − *59,189* | | − *4,345* | | + 54,844 | |
| Railways | 860,669 | | 2,105,438 | | +1,244,769 | |
| Irrigation | 231,756 | | 284,683 | | + 52,927 | |
| | | 1,137,165 | | 2,441,943 | | +1,304,778 |
| Mint | — | 99,181 | — | 88,533 | — | − *10,648* |
| Exchange | — | 58,429 | — | 94,065 | — | + 35,636 |
| Total Net Revenue £ | — | 46,844,062 | — | 49,707,582 | — | +2,863,520 |

## NET EXPENDITURE.*

| | 1903–04. | | 1904–05. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation). | — | 801,565 | — | 797,366 | — | −*4,199* |
| Military Services: | | | | | | |
| Army | 16,775,780 | | 19,214,763 | | +2,438,983 | |
| Military Works and Special Defence Works. | 1,016,625 | | 1,064,432 | | + 47,807 | |
| | | 17,792,405 | | 20,279,195 | | +2,486,790 |
| Collection of Revenue | — | 4,938,385 | — | 5,199,542 | — | + 261,157 |
| Civil Services: | | | | | | |
| Civil Departments | 10,381,887 | | 10,852,430 | | + 470,543 | |
| Miscellaneous Civil Charges | 3,714,097 | | 3,668,729 | | − *45,368* | |
| Civil Works (including Railways charged to Provincial or Local Revenues). | 4,118,384 | | 4,291,454 | | + 173,070 | |
| | | 18,214,368 | | 18,812,613 | | +598,245 |
| Famine Relief and Insurance | — | 905,680 | — | 1,000,000 | — | +94,320 |
| Provincial Balances: | | | | | | |
| 1. Increased by portion of allotments not spent in the year. | — | 1,195,259 | — | 162,800 | — | −*1,032,459* |
| 2. Decreased by expenditure from balances. | — | — | — | — | — | — |
| Total Net Expenditure charged against Revenue. | — | 43,847,662 | — | 46,251,516 | — | +2,403,854 |
| Surplus | — | 2,996,400 | — | 3,456,066 | — | + 459,666 |

* Figures for the 11 years ending 1904–05 will be found in Parliamentary Paper, House of Commons, No. 116 of 1906.

Thus there was in 1904–05, as compared with the previous year, an increase in the net revenue of £2,863,520, and an increase in the net expenditure of £2,403,854.

Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government

of India and in the Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the most important increases and decreases in 1904–05 :—

Net Revenue and Expenditure.

*Net Revenue.*

*Increases.*—The largest increase is that under railways, viz., £1,244,769. In 1903–04 there was a considerable improvement in the earnings of all the more important railway systems, due mainly to exceptionally heavy grain traffic, notably on the North-Western Railway. In 1904–05 there was a further great improvement, the wheat traffic of the North-Western Railway having again proved unusually heavy, and the traffic on most of the other large systems having continued exceptionally favourable.

The Customs revenue shows an advance of £427,966. There was a remarkable increase in the imports of cotton manufactures, due partly to the general prosperity of the country, while the increase in the imports of other manufactured articles was also very large. The rice crop in Burma was exceptionally heavy, and the exports of rice were the largest on record.

The improvement under Excise, £373,698, is attributed to more prosperous conditions and better administration. It was shared by all provinces.

*Decreases.*—The only decrease of note is that under Land Revenue, £282,336. Owing to partial failure of the rains in Madras and Bombay, and to failure of the kharif crop in Bundelkhand, it was found necessary to grant remissions and suspensions of land revenue amounting to more than £600,000.

*Net Expenditure.*

*Increases.*—The Army charges in 1904–05 include a net expenditure of £1,097,500 under the new sub-head, "Re-organisation." This sum has been spent on artillery, rifles, mules, horses, materials for the manufacture of ammunition, and other stores and equipment. The expenditure on re-organisation, of which this grant forms part, will extend over some years, during which it is intended to modify the present distribution of the Army in India, to improve its organisation, and to acquire additional arms, ammunition, transport, and stores. It is proposed to spend about £2,000,000 a year on the scheme, the expenditure being shown partly under "Army" and partly under "Military Works." Under "Regimental Pay and Allowances" there is an increase of £647,900, mainly due to the grant of "service pay" to the British Army. The Royal Warrant of 27th March 1902 provided for the issue of this additional pay, at rates varying from 7*d.* to 4*d.* a day, to warrant and non-commissioned officers, and to efficient soldiers who have enlisted for more than three years with the colours or who have been permitted to extend their service (*i.e.*, having originally enlisted for only three years' colour service, have agreed to extend their service to eight years). The grant took effect from the 1st April 1904, and the expenditure in India on this account in 1904–05 amounted to about £470,000. Under "Ordnance" there was additional outlay of £530,300, and under "Miscellaneous" (including the military escort of the mission to Tibet) of £168,700.

The increase in the expenditure on Civil Departments in 1904–05, viz., £470,543, occurred chiefly under "Marine" (£116,268), "Education" (£103,975), "Political" (£87,769), and "Police" (£66,151).

Under "Collection of Revenue" there is an increase of £261,157. Of this amount £154,810 is due to heavier charges for collecting the Land Revenues, the variations in which occur mainly in connection with Survey and Settlement operations and with changes in provincial and village establishments.

*Decreases.*—The only decrease of importance is that under the head of "Provincial Balances," viz., £1,032,459. In 1903–04 the revenue accruing to the Provincial Governments rose, owing to large special grants by the Government of India, to £21,544,521, while their expenditure was only £20,359,262. There was thus £1,195,259 to be added to their balances. In 1904–05 the amount that was credited to them out of the total revenue receipts was £20,617,172, while their expenditure was £20,454,372. The amount added to their balances was therefore only £162,800, a sum less than in 1903–04 by £1,195,259.

FINANCE.

The tables in the Appendix show the net revenue and expenditure in India of the several Provinces under the chief heads for the years 1903–04 and 1904–05, and the net payments in England.

The following summary shows the surpluses or deficits in the various Provinces and the net expenditure by the Government of India and the Secretary of State :—

| Provinces, &c. | 1903-04. | | 1904-05. | |
|---|---|---|---|---|
| | Surplus. | Deficit. | Surplus. | Deficit. |
| | £ | £ | £ | £ |
| Bengal - - - | 7,849,933 | — | 8,765,410 | — |
| United Provinces - - | 4,250,441 | — | 3,735,477 | — |
| Punjab - - - | 3,283,081 | — | 1,470,004 | — |
| Burma - - - - | 2,532,742 | — | 2,395,505 | — |
| Central Provinces - - | 527,255 | — | 223,969 | — |
| Assam - - - - | 141,305 | — | 265,097 | — |
| Madras - - - | 3,139,301 | — | 2,725,394 | — |
| Bombay - - - | 4,289,191 | — | 1,761,505 | — |
| North-West Frontier Province | — | *—262,938* | — | *—276,483* |
| Berar - - - | 336,350 | — | 409,611 | — |
| India, General - - | — | *—5,690,531* | 808,231 | — |
| England - - - | — | *—17,399,730* | — | *—18,827,654* |
| Net result - - | 2,996,400 | — | 3,456,066 | — |

## CAPITAL OUTLAY ON PUBLIC WORKS.

Capital outlay on public works.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

| | 1903-04. | 1904-05. |
|---|---|---|
| Amount supplied by Ordinary borrowing or from the Cash Balances, without being charged against the Revenue of the year : | £ | £ |
| State Railways - - - - - - | 4,535,105 | 4,933,387 |
| Irrigation Works - - - - - - | 507,898 | 361,172 |
| Amount met by Debenture Stock issued by the East Indian Railway Company. | — | 963,636 |
| Amount defrayed from Revenue : | | |
| Provincial Railways - - - - - | 26,550 | 6,250 |
| Preliminary railway expenditure not originally charged to construction. | 29,257 | — |
| Protective Railways - - - - - - | 96,605 | 115,812 |
| Protective Irrigation Works - - - - | 144,446 | 215,013 |
| Other Irrigation Works* - - - - - | 22,298 | 5,495 |
| Total Direct Outlay by the State - | 5,362,159 | 6,600,765 |
| Outlay by companies guaranteed or subsidised by Government | 1,857,961 | 1,297,460 |
| Outlay by railways outside Government accounts - - | 418,691 | 461,467 |
| Outlay by Local Boards - - - - - | — | — |
| Total Capital Outlay on Railways and Irrigation - £ | 7,638,811 | 8,359,392 |

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

## DEBT.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1904–05, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1 :—

| — | Amount of Debt on 31st March 1904. | Amount of Debt on 31st March 1905. | Increase. | Decrease. |
|---|---|---|---|---|
| | £ | £ | £ | £ |
| In India (permanent) - - | 79,616,202 | 81,531,882 | 1,915,680 | — |
| „ (temporary) - - | 333,333 | — | — | 333,333 |
| In England (permanent) - - | 131,045,844 | 132,387,191 | 1,341,347 | — |
| „ (temporary) - - | 2,000,000 | 500,000 | — | 1,500,000 |
| Total - - £ | 212,995,379 | 214,419,073 | 1,423,694 | — |

In 1904–05 a loan of 3 crores of rupees (£2,000,000) was issued in India at an average price of 97·6 per cent., and a temporary loan of £333,300 was discharged. In England £2,500,000 Three per cent. Stock was issued in order to provide for the discharge of £1,002,100 debentures of the Great Indian Peninsula Railway Company, and for advances by the Secretary of State in Council to railway companies. The average price obtained was £95 18*s.* 6*d.* per cent. Of the £2,000,000 sterling bills outstanding on 1st April 1904, £1,500,000 were discharged without replacement. Bills in replacement of the remaining £500,000 were issued in June 1904 at an average rate of £2 11*s.* per cent.

## OTHER OBLIGATIONS OF THE GOVERNMENT OF INDIA.

Other obligations.

Particulars regarding the obligations of the Government of India other than the permanent or temporary debt, and of loans by the Government of India and the Provincial Governments, are given in the following tables :—

OBLIGATIONS.

| — | Amount outstanding 31st March 1904. | Amount incurred 1904–05. | Amount discharged, 1904–05. | Amount outstanding 31st March 1905. | Increase 1904–05. | Decrease 1904–05. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Savings Bank Deposits | 9,798,338 | 4,025,775 | 3,162,793 | 10,661,320 | 862,982 | — |
| Deposits of Service Funds. | 1,170,708 | 99,221 | 81,920 | 1,188,009 | 17,301 | — |
| Excluded Local Funds | 280,053 | 813,161 | 799,512 | 293,702 | 13,649 | — |
| Railway Funds - - | 72,910 | 66,981 | 61,068 | 78,823 | 5,913 | — |
| Deposits of Sinking Funds. | 91,815 | 10,280 | — | 102,095 | 10,280 | — |
| Special Loans - | 1,126,744 | — | 672 | 1,126,072 | — | 672 |
| Treasury Notes - | 29,861 | — | — | 29,861 | — | — |
| Departmental and Judicial Deposits. | 3,611,115 | 18,846,014 | 18,583,072 | 3,874,057 | 262,942 | — |
| Total - - | 16,181,544 | 23,861,432 | 22,689,037 | 17,353,939 | 1,173,067 | 672 |

FINANCE.

## LOANS BY THE GOVERNMENT OF INDIA AND THE PROVINCIAL GOVERNMENTS.

| — | Amount outstanding 31st March 1904. | Amount advanced 1904-05. | Amount repaid 1904-05. | Amount outstanding 31st March 1905. | Increase 1904-05. | Decrease 1904-05. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Loans by the Government of India to Port Trusts, Municipalities, Native States, &c. | 8,912,341 | 210,844 | 323,481 | 8,799,704 | — | 112,637 |
| Loans by the Provincial Governments. | 3,327,048 | 411,304 | 520,020 | 3,218,332 | — | 108,716 |
| Total - - | 12,239,389 | 622,148 | 843,501 | 12,018,036 | — | 221,353 |

## CASH BALANCES.

Cash balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

| — | On 1st April. | | | Increase or Decrease. | |
|---|---|---|---|---|---|
| | 1903. | 1904. | 1905. | In 1903-04. | In 1904-05. |
| | £ | £ | £ | £ | £ |
| In India - - | 12,082,416 | 11,869,552 | 10,749,770 | — *212,864* | —*1,119,782* |
| In England - - | 5,767,787 | 7,294,782 | 10,262,581 | +1,526,995 | +2,967,799 |
| Total - - | 17,850,203 | 19,164,334 | 21,012,351 | +1,314,131 | +1,848,017 |

## COINAGE AND PAPER CURRENCY.

Coinage and paper currency.

The value of the coinage at the Mints in India was :—

| — | 1903-04. | 1904-05. |
|---|---|---|
| | £ | £ |
| Silver - - - - | 13,889,738 | 10,759,063 |
| Copper - - - - | 127,857 | 130,148 |
| Total - - £ | 14,017,595 | 10,889,211 |

The silver coinage in 1904–05 consisted of 108,784,913 rupees, 2,506,532 half rupees, 2,412,921 quarter rupees, and 21,013,511 British dollars (mostly Straits dollars). A small part of the rupee coinage was undertaken on behalf of the Native State of Sirohi, the balance being for circulation in British India.

The receipts and expenditure of the Indian Mints were as follows :—

| — | 1903-04. | 1904-05. |
|---|---|---|
| | £ | £ |
| Receipts - - - - | 2,884,766 | 205,410 |
| Expenditure - - - | 2,785,585 | 117,877 |
| Net Receipts - - | 99,181 | 88,533 |

The decrease in the receipts and expenditure which these figures show for 1904–05, as compared with 1903–04, is largely due to a change in the system of accounts. The profit on the rupee coinage is transferred to the Gold Reserve Fund, but up to and including 1903–04 it was shown in the Mint receipts, a corresponding entry on the expenditure side representing the transfer to the Gold Reserve Fund: from 1st April 1904, however, it has been decided to exclude the figures from the Mint account and, instead, to make the appropriate entries under a deposit account. There was a net profit of £2,627,575 on the coinage of rupees in 1903–04 and of £1,790,380 in 1904–05.

On the 31st March 1905, the Gold Reserve Fund consisted of Consols and other stock of the nominal value of £8,930,039, in addition to a sum of £152,000 held in India in the Treasury balances.

*Paper Currency.*—On the 31st of March 1904 the value of notes in circulation was £26,117,000, being greater by £643,000 than on the corresponding date in 1904. The paper currency reserve was, in gold £10,740,000, in silver coin £7,576,000, in silver bullion £1,134,000, and £6,667,000 invested in securities of the Government of India.

## RATE OF EXCHANGE.

Rate of exchange.

In 1903–04 the Secretary of State for India in Council sold Bills and Telegraphic Transfers on the Treasuries in India for Rs. 35,67,94,845, and received for them £23,859,303; the average rate was thus 1*s.* 4·04909*d.* per rupee. The Bills and Telegraphic Transfers sold in 1904–05 amounted to Rs. 36,53,57,364; the sterling received was £24,425,558; and the average rate was 1*s.* 4·04493*d.* per rupee.

# CHAPTER VI.

SURVEYS.

## SURVEYS.

### SURVEY OF INDIA DEPARTMENT.

Survey of India.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical surveys, forest and cadastral surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year ending 30th September 1904. Some particulars of the progress of forest and cadastral surveys, which are carried out partly by local agencies, are given in the chapters on forests and land revenue. The Survey Department has now a general control over the forest surveys, and in most provinces over the cadastral surveys. The recent Bombay survey, however, was conducted by a separate department, and there is also a Madras Survey Department in charge of the operations in that Presidency.

At the end of the year 1904 a Committee was appointed by the Government of India to consider, in consultation with experts from England, the question of the state of the topographical surveys and other cognate matters. Their report has been received, and has recently been published in India. It contains a historical account of the Survey of India and of its cost, an explanation of survey methods, an account of the present organisation of the Department, and of cadastral, forest, and miscellaneous surveys; it proceeds then to deal with the revision of topographical maps of India, with the organisation required, the methods and style of their publication, and various other matters. The report is still under the consideration of the Government of India.

Reviewing first the operations of the Survey of India Department during 1903–04 as a whole, the field operations of the year were carried on by twenty survey parties. Of these, one party was employed on trigonometrical surveys; eight parties on topographical surveys; four on forest surveys; three parties with several detachments on cadastral and traverse surveys; and four parties on scientific operations. The total outturn of detail survey amounted to 58,500 square miles during the year, of which 24,100 square miles were geographical surveys. The area triangulated was 22,500 square miles; and 8,700 square miles were traversed for cadastral purposes. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical.

The programme of the trigonometrical party (No. 24) was to continue the Great Salween principal series eastwards; but the deputation of Captain Wood to Nepal, on an inquiry respecting the identity of Mount Everest, interfered with this programme, and little progress was made, though some useful work was carried out.

Topographical.

The total area topographically surveyed during the year was 20,900 square miles. The amalgamated party No. 11, which includes the parties formerly known as Nos. 11 and 21, engaged in Upper Burma, surveyed an aggregate area of 3,153 square miles on the 1-inch scale in the Shan States. It has been decided to carry this survey right up to the frontier. No. 10 party was engaged in the eastern portion of Upper Burma in revising and adding to the maps produced by reducing the cadastral sheets, inserting hills and other topographical detail. This work was carried out over the area of 2,704 square miles, on the 1-inch scale, besides 301 square miles of new topographical survey. Another party, No. 3, engaged in Lower Burma on similar operations, completed 2,148 square miles of new detail survey and 455 square

SURVEYS.

miles of supplementary topographical survey, all on the same scale. The question as to how far topographical surveys should be carried in Burma has been decided, and a five years' programme has been fixed for parties Nos. 3 and 10, embracing a large area of the more important tracts of country. No. 12 party continued the survey of Sind on the 2-inch scale, and completed an area of 2,715 square miles. The detachment at work in the Central Provinces, now called No. 1 party, completed supplementary topographical survey on the 2-inch scale of 2,839 square miles in the Saugor and Damoh districts, besides a small area of standard surveys in Native States. The work of No. 15 party consisted in topographical survey of 1,287 square miles in Baluchistan, and the compilation of maps of various cantonments. The Punjab party, No. 18, carried out supplementary topographical surveys on the 2-inch scale in an area of 3,090 square miles in the Multan and Amritsar districts of the Punjab, to render the large scale *patwari* maps of the province available for topographical purposes. They were also engaged with the Simla and the riverain surveys. No. 14 party continued its work in the Allahabad division of the United Provinces, where it is engaged in a full topographical survey on the scale of 2 inches to the mile; 1,936 square miles were completed during the year, as well as 285 square miles of supplementary survey in other districts.

Special operations. *Geodetic.*

At the beginning of the year under report, two parties (Nos. 22 and 23) were employed in combination on latitude observations in Bengal. Later, they were separated, No. 22 party having assigned to it the work of extending the great arc of India northwards across the Mussoorie hills to the snowy range, and of observing for latitude at stations in the inner Himalayas. Captain Cowie, who was in charge of this party, was subsequently detailed for duty with the Tibet Frontier Mission. In addition to this work, No. 24 party was ordered, after the conclusion of Captain Wood's special employment in connection with Mount Everest, mentioned above, to observe rigorous astronomical azimuths at longitude stations in India and Burma, required for the determination of errors in the principal triangulation. No. 23 party, later in the year, undertook the revival of the pendulum observations which were brought to a close in 1870, with instruments carefully prepared and tested at Greenwich.

*Tidal and levelling operations.*

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year by No. 25 party at twelve stations. The levelling detachment was again employed in Upper Burma, and on the conclusion of the work there, was transferred to the line from Dehra Dun to Mussoorie.

*Magnetic.*

Five detachments of the Magnetic Survey party (No. 26) continued and extended the work of the Magnetic Survey over different portions of the country. Four of the five base stations were working, and it was hoped that Toungoo, the fifth, would be installed shortly. The number of stations occupied up to the end of 1903–04 was 600, the result of three seasons' work, so that the fundamental survey was more than half completed.

Geographical surveys and explorations.

Under the geographical head are included surveys and reconnaissances which are executed on the scale of half an inch to a mile or smaller scales. The survey detachment with the Aden Boundary Mission completed an area of 6,100 square miles, mostly on the half-inch scale. The detachment with the Seistan Mission also completed about 15,000 square miles on the quarter-inch scale during 1904. Another detachment accompanied the Tibet Mission, and completed an area of about 18,000 square miles of the country between British territory and Lhasa. Captains Ryder and Wood also, returning from Gyangtse *viâ* Shigatse and Gartok to Simla, added another 40,000 square miles of geographic survey of much interest.

Map production.

The Drawing Office was engaged as usual in the compilation and revision of the various general maps, and on additions to standard sheets when fresh material was available, besides publishing and preparing the sheets received from the field parties, issuing cadastral maps, and miscellaneous work. Sixteen sheets of the new $\frac{1}{1,000,000}$ map of India were in hand, and 13 were under publication. The usual large quantity of provincial and other maps and plans occupied the drawing, photographic, and lithographic branches.

SURVEYS.

## OTHER SURVEYS.

**Marine surveys.**

The marine survey vessels "Nancowry" and "Investigator" were employed in a survey of Stewart Sound in the Andamans, which it was hoped to finish by the end of the following season. A survey of the approaches to the anchorage at Rameswaram island, in the Gulf of Manaar, was made by the "Nancowry," in connection with the proposed ship canal, and the "Investigator" also, on its way back from the Andamans, surveyed the Horseshoe channel at Rameswaram island.

**Geological.**

The report of the Geological Survey Department for the last nine months of the year 1904 shows that, in respect of economic geology, the Department has kept in touch with the numerous developments of private enterprise, and that there are increasing prospects of a healthy development of the mineral resources of India. In the direction of scientific geology, valuable work was done in Kashmir, Tibet, and Assam, and in connection with the older alluvial deposits, while a discovery of notable interest was made in Rajputana, namely, a sodalite rock with remarkable colour characteristics. The economic inquiries included investigations into coal in Jammu State, and in the Shan States, gold in Assam, manganese in the Central Provinces, and other matters, the most important of which was the establishment of the fact that high grade aluminous laterites or bauxites exist in various parts of India. Geological surveys not having a directly economic character were also in progress in many parts of India, including Assam, Bombay, Burma, Kashmir, and Madras, as well as in Tibet, where an officer of the Department, accompanying the Tibet Mission, did very good work. A preliminary note on his discoveries is appended to the annual report of the Department for 1904.

**Earthquake in the Punjab.**

A preliminary account has been published, among the Records of the Geological Department, of the disastrous earthquake which occurred on the 4th April 1905, and which is said to have caused the loss of more than 20,000 lives. Its starting point was the Kangra district of the Punjab, in the Himalayan region. Beginning at an early hour of the morning, when many people were still asleep, the more violent phases of the shock dealt summary destruction to life and property in the neighbourhood of the Kangra valley and Dharmsala; accomplished very great damage and caused considerable loss of life in the hilly tracts of Mandi State and Kulu; and did serious damage to Dehra Dun, Mussoorie, Chakrata, and other towns in the vicinity, and slight damage to the large towns of Lahore, Amritsar, Jullundur, Saharanpur, and others similarly placed with reference to the centre. Outside this area the earthquake was felt with continually diminished intensity, until the limits of its appreciation by the unaided senses coincided roughly with part of an ellipse passing through Quetta, Surat, Ellichpur, False Point, and Lakhimpur. It was registered by seismological instruments situated so far from the base as Europe and America. In the area of Kangra and Kulu it caused loss of life in 409 villages, containing 373,000 inhabitants, over an area of 1,100 square miles. Within this area it is computed that 100,000 houses were destroyed, 20,047 human lives lost, and 13,300 plough cattle and 39,800 other animals killed. Prompt and energetic measures of relief and reconstruction were taken, but the effects in Kangra have necessarily been great.

**Botanical.**

The Botanical Survey of India is also being conducted not only from a scientific, but also from an economic and agricultural point of view. Various investigations were carried out by officers of the Department, or by native collectors, with a view to the completion of the botanical records and publications. The number of plants distributed from the Calcutta Botanic Garden during the year was nearly 41,000. The investigations into the species of *agaves* found in India were concluded, and the results were being prepared for publication. The Herbarium was reorganised during the year with the aid of a Government grant made for that purpose, and it now has a capacity for a million specimens.

**Archæological.**

The Archæological Surveyor of Western India toured for the most part in Central India, but also visited Gujarat and the Deccan. The most important work of restoration was that of the Gol Gumbaz at Bijapur.

Altogether, on ordinary and special repairs, the sum of £2,900 was spent. In the Madras Presidency, excavations of prehistoric sites were continued in the Tinnevelly and Cuddapah districts, and the conservation of ancient monuments received special attention. Among other monuments selected for conservation was the old town wall of Madras. The amalgamation of the archæological circles of the United Provinces and Punjab was effected in July 1903. There are still, however, two officers, one of whom, known as the Superintendent, has his headquarters at Lahore and is concerned solely with the architectural side of Muhammadan archæology. The other officer, known as the Surveyor, has the supervision of the buildings at Agra, Jaunpur, Delhi, Lahore, and Ajmere, and deals with matters affecting Hindu and Buddhist buildings. The former toured in the Kangra district and the Chamba State, where many ancient buildings have been damaged by the earthquake. A report on the preservation of ancient temples and monuments of Kashmir, submitted by the Superintendent, has led to the creation of an archæological and research department for the State. Dr. Stein made a tour on the Yusufzai border of the North-West Frontier Province, which produced some interesting results. In Bengal and Assam the total amount spent on conservation of ancient monuments during 1904–05 was £3,000. The excavations at Basarh were not continued, though they were to be resumed subsequently; but some earthen burial mounds at Lauriya were opened, and various sites of ruined towns were cleared. In Burma, the chief work was the dismantlement and re-erection of the spire of the Mandalay palace; and a museum was opened in the palace. An Ancient Monuments Preservation Act, passed in 1904, enlarged the scope of the Government Archæologist's duties, and lists of ancient remains and buildings, to which it may be found advisable to apply the provisions of the Act, were being prepared.

Surveys.

## Meteorological Department.

Meteorological observations were recorded during the year 1904–05 at 260 stations, of which 211 were maintained by the Government of India. Of these latter, seven were first-class observatories and 40 second-class, the remaining 164 belonging to classes in which less frequent observations are taken. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms and earthquakes. Daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings, are issued. A meteorological and climatological atlas of India, prepared by Sir John Eliot, K.C.I.E., recently head of the Department, is being published by Messrs. Bartholomew, of Edinburgh.

Meteorological Department.

The forecast of the probable rainfall for the monsoon of 1904 stated that the Bombay monsoon current was likely to be decidedly feeble in June and late in establishing itself, the Bengal current being below its usual strength and about at its normal time. The total rainfall from the Bombay current would be in defect, but the Bengal current would be above normal, and the whole rainfall was likely to be rather above the normal. This forecast was correct in several of its features, but the rainfall for the first two months of the monsoon was 8 per cent. below normal. The estimate for the months of August and September 1904 was also rather too sanguine.

The forecast of the winter rains, from December 1904 to February 1905, predicted that they would be generally in excess; the actual fall for this period was in very marked excess above the normal.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings. There was no cyclone in any port in the Bay of Bengal during the year. On the western side of India warnings were sent to 24 ports, to seven of them on the "extended" system. The system

SURVEYS. of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 569 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients, with few exceptions, to have been timely and satisfactory.

Rainfall. The average rainfall and the actual rainfall of the three years 1902 to 1904, in the regions into which India has been divided, were as follows:—

| Meteorological Division. | Average Rainfall of Past Years. | Actual Rainfall. | | | Variation of 1904 Rainfall from the Average. |
|---|---|---|---|---|---|
| | | 1902. | 1903. | 1904. | |
| | *Inches.* | *Inches.* | *Inches.* | *Inches.* | *Per cent.* |
| Western Himalayas | 57·23 | 44·60 | 46·60 | 55·10 | − 4 |
| Punjab Plains | 21·28 | 15·91 | 20·04 | 17·02 | − 20 |
| United Provinces | 39·16 | 33·92 | 41·81 | 39·32 | 0 |
| Rajputana | 23·11 | 16·62 | 21·45 | 19·66 | − 15 |
| Central India States | 43·39 | 36·88 | 39·60 | 39·64 | − 9 |
| Behar | 45·20 | 43·03 | 32·88 | 50·90 | + 13 |
| Western Bengal and Chota Nagpur | 53·70 | 47·59 | 47·27 | 60·93 | + 13 |
| Lower Bengal | 65·73 | 70·11 | 60·92 | 59·08 | − 10 |
| Eastern Himalayas | 124·14 | 153·88 | 125·58 | 114·43 | − 8 |
| Assam and Eastern Bengal | 95·10 | 106·28 | 94·60 | 101·43 | + 7 |
| Orissa and Northern Circars | 51·84 | 49·39 | 59·58 | 50·85 | − 2 |
| Central Provinces, South | 52·46 | 35·51 | 55·58 | 41·10 | − 22 |
| Berar and Khandesh | 34·94 | 29·86 | 39·05 | 26·83 | − 23 |
| Gujarat | 32·80 | 30·12 | 29·64 | 14·08 | − 57 |
| Sind and Cutch | 9·04 | 9·00 | 6·37 | 3·47 | − 62 |
| North Deccan | 30·78 | 32·60 | 30·33 | 22·72 | − 26 |
| Konkan and Ghâts | 134·46 | 129·65 | 140·47 | 113·23 | − 16 |
| Malabar and Ghâts | 114·93 | 124·76 | 127·01 | 120·73 | + 5 |
| Hyderabad | 33·14 | 27·49 | 48·37 | 25·78 | − 22 |
| Ceded Districts and Mysore | 29·16 | 30·43 | 44·40 | 23·37 | − 20 |
| Carnatic | 36·77 | 47·38 | 49·80 | 25·80 | − 30 |
| Nilgiris | 50·11 | 78·62 | 53·34 | 33·67 | − 33 |
| Arakan | 154·05 | 156·45 | 148·48 | 154·94 | + 1 |
| Pegu | 78·02 | 73·57 | 79·08 | 85·99 | + 10 |
| Tenasserim | 173·34 | 151·11 | 165·94 | 207·39 | + 20 |
| Upper Burma | 38·16 | 35·31 | 34·21 | 43·00 | + 13 |
| Bay Islands | 96·37 | 128·21 | 99·52 | 105·15 | + 9 |

Over the whole of India, excluding Burma, the rainfall of 1904 was 4·84 inches below the normal, averaging about 36 inches.

# CHAPTER VII.

## LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

The subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the Finance and Revenue Accounts for the financial year 1904–05.

DETAILS of LAND REVENUE and EXPENDITURE.

| — | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Ordinary Land Revenue - | 92,363 | 2,641,355 | 4,262,776 | 1,656,840 | 123,749 | 1,457,591 | 578,093 | 548,892 | 391,509 | 3,704,951 | 2,250,618 | 17,708,737 |
| Recovery of Survey and Settlement Charges. | — | 27,373 | — | — | — | — | — | — | — | — | — | 27,373 |
| Sale of Proprietary Right of Government in Land. | 2 | 623 | 58 | 42 | — | — | — | — | 81 | — | — | 806 |
| Assessment of alienated lands, less quit-rents. | — | 5,837 | — | 14,230 | 184 | — | — | — | — | — | 605,485 | 625,736 |
| Sale of Waste Lands and Redemption of Land Revenue. | 53 | 4,729 | 40 | 41,380 | 70 | 513 | 1 | 1,521 | 55 | 2,068 | — | 50,430 |
| Capitation Tax, or House Tax levied in lieu. | 447 | 627 | — | — | — | 662,533 | — | — | — | — | — | 663,607 |
| Receipts for the Improvement of Government Estates. | — | 45,468 | — | — | — | — | — | — | — | — | — | 45,468 |
| Fisheries and other Receipts classed as Miscellaneous. | 9,226 | 17,026 | 45,021 | 46,947 | 8,027 | 352,343 | 3,877 | 3,339 | 30,839 | 176,158 | 32,287 | 725,090 |
| Total Gross Revenue - | 102,091 | 2,743,038 | 4,307,895 | 1,759,439 | 132,030 | 2,472,980 | 581,971 | 553,752 | 422,484 | 3,883,177 | 2,888,390 | 19,847,247 |
| *Deduct* portion credited to Public Works for irrigation. | — | — | 97,604 | 147,305 | 3,417 | 1,281 | — | — | — | 527,099 | 116,544 | 893,250 |
| Total credited to Land Revenue for 1904-05. | 102,091 | 2,743,038 | 4,210,291 | 1,612,134 | 128,613 | 2,471,699 | 581,971 | 553,752 | 422,484 | 3,356,078 | 2,771,846 | 18,953,997 |
| Total for 1903-04 - | 98,168 | 2,733,538 | 4,217,176 | 1,555,479 | 118,308 | 2,348,661 | 559,084 | 522,011 | 362,868 | 3,548,857 | 3,170,238 | 19,234,388 |
| EXPENDITURE. | | | | | | | | | | | | |
| District Administration - | 18,693 | 210,372 | 254,961 | 132,490 | 21,023 | 164,531 | 65,144 | 32,311 | 41,084 | 285,508 | 222,670 | 1,448,787 |
| Survey and Settlement - | 9,791 | 89,155 | 31,458 | 55,835 | 22,523 | 41,762 | 15,853 | 2,079 | 8,716 | 61,988 | 7,378 | 346,538 |
| Land Records and Agriculture. | 8,545 | 6,427 | 241,555 | 104,305 | 9,599 | 49,251 | 48,482 | 388 | 14,522 | 131,455 | 175,954 | 790,483 |
| Charges directly connected with the collection of Land Revenue. | 1,040 | 44,847 | 21,120 | 4,231 | 1,549 | 128,193 | 5,262 | 64,104 | 12,512 | 249,381 | 87,772 | 617,011 |
| Total Charges in India. | 38,069 | 350,801 | 549,094 | 293,861 | 54,694 | 383,737 | 134,741 | 98,882 | 76,834 | 728,332 | 493,774 | 3,202,819 |
| Charges in England - - - - - - - - - - - - - - | | | | | | | | | | | | 875 |
| Total Charges, 1904-05 - - - - - - - - - - - - - - | | | | | | | | | | | | £ 3,203,694 |

The chief source of revenue in India has from ancient times been a share of the produce of the land. Nearly two-thirds of the total population

LAND REVENUE.

returned some form of agriculture as their principal means of subsistence at the last census. The administration of the land revenue is, therefore, even more important from a social and political than it is from a financial point of view; and a proper treatment of the subject involves not only an account of the revenue collections but also some notice of the relations between landlord and tenant, as well as between the Government and the revenue payer, and of changes in ownership or occupancy of the land.

### REVENUE SURVEYS AND SETTLEMENTS, &c.

Indian revenue settlements are broadly classified as follows. In the first place there are permanent settlements, by which the demand of the State has been fixed and made unalterable for ever; and, secondly, there are temporary settlements, under which the State demand is revised at recurring periods of greater or less duration. The permanently settled districts cover the greater part of Bengal, parts of the United Provinces and Madras, and a few other isolated tracts. The temporarily settled tracts fall into two broad divisions; Zamindari (in some provinces called Malguzari or Talukdari), where the landlord, or proprietary group, pays the land revenue to the State, whether the land is cultivated by the revenue payers themselves or by their rent-paying tenants; and Ryotwari, where the cultivator as a general rule pays direct to the State. In both these tracts the rates of land revenue are settled for periods varying, according to the province, between ten and thirty years, the latter figure prevailing in all the larger provinces with the exception of the Punjab and the Central Provinces, where settlements are usually made for twenty years. In the Zamindari areas, where estates range from hundreds to many thousands of acres, the amount of the periodical assessment is a share, generally rather less than one-half, of the ascertained or assessed rental enjoyed by the proprietors; in the Ryotwari tracts, where the estates are small and cultivated by peasant proprietors, rates of revenue are fixed at the periodical assessments for each field with reference to its productiveness, and are paid by the ryot on the area actually held for cultivation in each year; the incidence varies in different provinces from one-fifth to one twenty-fifth part of the gross value of the produce. The United Provinces of Agra and Oudh, the Punjab, the Central Provinces, and Orissa mainly contain estates held by proprietary communities or large proprietors; while in Bombay, Burma, Assam and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of the surveyed areas in which the various tenures prevail, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including mortgage with possession, and excluding inheritances and temporary transfers), during the agricultural year 1903–04. The figures are in thousands of acres:—

| — | Ryotwari (peasant proprietors). | Zamindari (larger proprietors) and Village Communities. | | Total. | Transfers. |
|---|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | | |
| Upper Burma | 49,041 | — | — | 49,041 | 65 |
| Lower Burma | 54,978 | — | — | 54,978 | 602 |
| Assam | 25,998 | 3,909 | 1,428 | 31,335 | 50 |
| Bengal | — | 81,984 | 15,566 | 97,550 | * |
| United Provinces—Agra | — | 6,160 | 46,437 | 52,597 | 986 |
| " " Oudh | — | 1,156 | 14,182 | 15,338 | 262 |
| Punjab | — | — | 62,222 | 62,222 | 475 |
| North-West Frontier Province | — | — | 8,498 | 8,498 | 117 |
| Sind | 30,035 | — | — | 30,035 | 106 |
| Bombay | 44,768 | — | 3,842 | 48,610 | 847 |
| Central Provinces | 1,645 | — | 42,857 | 44,502 | 804 |
| Berar | 11,333 | — | — | 11,333 | 206 |
| Madras | 60,167 | 30,518 | — | 90,685 | 434 |

* Figures not available.

The Ryotwari area may be said, therefore, to embrace about 278 million acres, the Zamindari area under permanent settlement 124 millions, and

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under temporary settlement 195 millions. In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the Agra province the incidence is about Re. $1\frac{5}{8}$ per acre of cultivated land; in the similar tracts of Madras it is considerably lower than this. In the Zamindari area under temporary settlement the land revenue represents usually something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce. The average incidence of the land revenue per acre of fully assessed cultivated land in the temporarily settled tracts, as given in the returns for 1903–04, is approximately Re. $1\frac{7}{8}$ in the United Provinces, rather over Re. 1 in the Punjab, Re. $1\frac{1}{8}$ in Berar, Rs. $2\frac{1}{3}$ in Lower Burma, Re. $1\frac{3}{8}$ in Upper Burma, Rs. $2\frac{1}{2}$ in Assam, Rs. $2\frac{1}{2}$ in Sind, Re. $1\frac{3}{8}$ in Bombay, 9 annas in the Central Provinces, Rs. $2\frac{1}{3}$ in Madras, and Re. $1\frac{1}{2}$ in Bengal. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall or means of irrigation, and according to the facilities for carrying produce to markets or to the seaboard. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used. The State demand on any land is not enhanced in the Ryotwari provinces of Madras or Bombay on account of increased productiveness due to improvements made by the proprietors or occupiers themselves. In northern India also such improvements are not taken into account in assessing the revenue until a period varying from 20 to 60 years has elapsed.

Bengal.

Survey and settlement operations were in progress during the year ending in September 1904 in fifteen districts of Bengal. The total area included in these operations was 22,700 square miles, contained in 23,000 villages. The area cadastrally surveyed was 5,093 square miles. The rents of nearly 88,000 tenants were settled. The total area of which a record of rights had been completed in settlements under the control of the Director of Land Records was 35,200 square miles. The cadastral survey and settlement operations on the permanently settled lands of North Behar had been finished. The completion reports for Saran and Darbhanga were received, and orders passed on them, during the year. They contain an immense amount of information, which it would be idle to attempt to summarise, as to crops, incidence of rent, the pressure of the population on the soil, and the average income of the petty proprietor, the tenant cultivator, and the agricultural labourer. In both districts, but especially in Saran, the population is very dense, and the agricultural labourer class is very near the starvation line in bad years, though the pure cultivator class, which forms about three-fifths of the population, is in a moderate condition of comfort. It is recorded that in Saran the incidence of the Government revenue per cultivated acre is just over 14 annas, that of rent being nearly Rs. $4\frac{1}{4}$. In both districts the survey operations have been of great advantage to the progress and prosperity of the district, hitherto hampered by the uncertainty of the rental demand.

The settlement of rights in the Backerganj district, and in Ranchi, North Bhagalpur, and North Monghyr made good progress, and the operations first undertaken in a small part of the Purnea district were extended to the rest of it during the year, while similar work was in progress in private estates in Gaya, Rangpur, Murshidabad, Shahabad, and the Sonthal Parganas. Settlements of land revenue were also being made in various temporarily settled tracts and Government estates.

The results of the working of the three offices maintained for the record of mutations continued to be unsatisfactory. Schemes for the maintenance of the settlement records in North Behar, Chittagong, and Orissa were under consideration. As regards the Government and Wards' estates which have been surveyed and settled under the supervision of the Land Records

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Department, rules are in force for the registration of mutations, and a good standard of efficiency seems to be maintained.

United Provinces.

In the United Provinces of Agra and Oudh the cadastral surveys, which are carried out by the village accountants (patwaris), were in progress in Moradabad, Banda, and Hamirpur, and settlement officers were generally satisfied with the work done. The regular revision settlements in Oudh have now been practically finished, with the formal closing of the settlement of the Gonda district. This revision began in 1889 and continued without remission until the year under report. In the Agra Province the settlements of Farrukhabad and the trans-Jumna tahsils of the Allahabad district were formally closed. Operations were continued in five districts and commenced in four. The percentage of increase resulting from the assessments declared during the year was 7·60 in Mainpuri, 8·12 in Etah, and 10·38 in Azamgarh. In Bundelkhand a revision settlement was being carried out under special rules, which will provide a fluctuating assessment.

With respect to the Tenancy Act, it is noted that there was a rise in the number of enhancement cases and of suits for arrears of rent, though, perhaps, these changes were due more to the general prosperity than to the effects of the Act. It is disappointing to find that ejectments were as numerous as in the previous year, and had not fallen to the normal level which prevailed before the passing of the Act; and it is feared that the landlords may defeat the object of the Act by using its provisions to substitute yearly tenants-at-will for more permanent tenants. The object of the Act was to induce landlords to give their cultivators some fixity of tenure; if they did not choose that their tenants should acquire any rights, they were at least to grant them long-term leases. But owing, perhaps, partly to the long-standing prejudice of the tenant against leases, the area protected by long-term leases stood at 488,700 acres only, of which the greater share was in the Meerut division, where the provisions of the Act appear to be best understood.

The area of all holdings in the Agra Province is given as 27·9 millions of acres, of which 9·2 millions were held by tenants with occupancy rights, 11·1 millions by non-occupancy tenants, and one million by ex-proprietary tenants or other tenants with privileged rights, while the remainder was for the most part cultivated by the proprietors. In Oudh, the holdings amounted to 9·8 millions of acres, of which nearly 8 millions were held by ordinary tenants, and one million cultivated by the proprietors. The number of transfers of proprietary interests in land was again higher than the figures of the preceding year, but the increase is to a large extent accounted for by the rise in the number of succession cases.

The Encumbered Estates Act and the Alienation of Land Act in Bundelkhand both worked well, the effect of the latter being seen in a considerable increase in the area held by agricultural tribes.

Punjab.

Good progress was made with settlement work in the Punjab during the year ending on the 30th September 1904. The Jhang and Rawalpindi settlements were approaching completion, work was progressing in Gurgaon and Mianwali, and the settlement of Ambala and Rohtak was to be undertaken shortly. The settlements of the Dera Ismail Khan and Hazara districts, which are in the North-West Frontier Province, were controlled during the year by the Settlement Commissioner of the Punjab; they are expected to take longer in execution than was at first contemplated. The system known as *killabandi*, the essence of which is the demarcation of small squares which serve as units for assessment purposes and thus enable every peasant to be clear as to his own liability under a fluctuating demand, had been carried out over the whole area in the Shahpur district commanded by the Chenab Canal, and was to be extended. By this means also periodical amendments of the map are rendered unnecessary.

By the end of the year ending in September 1904, the Punjab Alienation of Land Act had been in force for more than two years, and it is reported that it appeared to be generally well understood, and that its working added little to the volume of district work. It is reported that no extensive contraction of credit has resulted from the working of the Act. The process of recovery in the price of land towards the figures that prevailed before the year 1900 continued during the year under report. Statistics seem to show

that, while the Act has been effective in stopping sales, greater resort is now being had to mortgage. LAND REVENUE.

In the Frontier Province, settlements were already in progress, in the year ending on the 30th September 1904, in all districts except Peshawur, and in April 1904 they were undertaken in the Kurram Agency. The Dera Ismail Khan and Hazara settlements are, as above stated, under the control of the Punjab Settlement Commissioner. The Kohat, Bannu, and Kurram settlements are under the charge of the Revenue Commissioner of the Frontier Province, and satisfactory progress was made with these, having regard to the special difficulties of the country. The irrigation question is of supreme importance in Bannu, and the whole district is being remeasured on the square system mentioned above. Owing to the growing tendency of the land to pass into the possession of the money-lending classes, the Punjab Alienation of Land Act was applied in June 1904, with certain modifications, to the Bannu, Hazara, and Dera Ismail Khan districts; but there is nothing to mention as to its operation during the last three months of the year under report. North-West Frontier Province.

In Burma, a party of the Survey of India was employed on cadastral survey in the Pakokku district, and original surveys were also carried out by local agency in Katha and Tavoy for settlement purposes, in addition to revision surveys. The original settlement which has been in progress in the Hanthawaddy, Tharrawaddy, and Prome districts was completed, and has resulted in an enhancement of nearly 50 per cent. in the revenue demand. Similar work was also in progress in Tavoy, and was nearly completed in Shwebo and Katha. The revision settlement in the Myaungmya district resulted in an enhancement of 37 per cent. in the revenue demand. Good progress was made with other revision settlements, and with summary settlements over a comparatively small area. The area under supplementary survey (42,800 square miles) was higher than in 1903-04, owing to the inclusion of areas in the Upper and Lower Chindwin districts, where summary settlement had been completed. Burma.

The transfer of cultivated lands to the hands of non-agriculturists and the increase in the areas sublet continued. Legislative measures to restrict the alienation of land have recently been in contemplation, but the question was still under consideration. The area let at full rents is given as 2,226,600 acres, and the average rent as about Rs. $9\frac{3}{4}$ per acre. Sales of land decreased slightly, but the area under mortgage rose to more than a million acres, owing partly to better registration of mortgages, but also to seasonal calamities in some districts.

Operations connected with revision of settlement were continued in Chanda and Sambalpur districts of the Central Provinces, and a start was made in Mandla. Regular settlement operations were in progress in the Government villages of these three districts, and in the zamindaris of the first two and of the Raipur district. Final revision reports were received for the latter and one other area, and the final settlement report of the Nimar district was submitted, and the orders of Government on this and the reports of the Saugor and Bhandara districts were passed. In the two former districts the new assessment, which is below the half assets standard, is paid without difficulty, and the people have been recovering their prosperity after the famines. In Bhandara, where the effect of the famines was very severe, it was found advisable to make an abatement for three years in 418 villages, with effect from the 1st July 1903. Central Provinces.

The areas held by absolute and occupancy tenants in the Central Provinces showed a slight decline, while the area in the occupation of ordinary tenants increased by over 200,000 acres. Ordinary tenants have made but little attempt to purchase occupancy rights, and it would seem that they regard their position under the new Tenancy Act as already sufficiently secure. Only small resort was had to the provisions of the Act which deal with enhancement of rent, and the general relations between landlords and tenants were satisfactory. A further indication of the increasing stability of the position of the agricultural classes is given by the decrease in transfers of land, both in the case of private sales and of sales by order of the civil courts. The majority of the sales that took place were in favour of agriculturists. The landlords fully shared in the economic progress of their tenants, and

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the tendency to restriction of the home-farm area was far less pronounced than in recent years. In Berar, the agricultural tenure is entirely ryotwari, the cultivators holding their land direct from Government.

Assam.

In Assam, good progress was made with the resettlement operations in Sibsagar and Kamrup during 1904–05; four assessment reports were submitted, and field work in the remaining groups of both districts was practically completed. Since the close of the year, the re-assessment of the Kamrup district has been completed by the submission of five assessment reports, on which final orders have been passed. In view of the severity of the effects of the earthquake of 1897, Kamrup has been treated with great leniency, and the final result of the resettlement has been a total abatement of 2·36 per cent. on the previously existing demand. The all-round enhancement effect by resettlement in Sibsagar, taken as a whole, will probably not exceed 7 per cent. The area of land settled in the year for ordinary cultivation did not show so large an increase as in the previous year. In the Surma valley, most of the culturable land has already been appropriated, while in the Assam Valley districts expansion was checked by the prevalence of disease and by unfavourable seasonal conditions in some areas.

Madras.

The operations of the Madras Survey Department during the year ending in June 1905 consisted mainly of resurvey prior to resettlement in the Guntoor, Tinnevelly, Nellore, and Salem districts, and the out-turn of work, together with original cadastral surveys of proprietary lands, amounted to 3,212 square miles. Six settlement parties were at work, in connection with initial settlements in Malabar and South Canara, and resettlements in the Godavari, Kistna, Guntur, Nellore, Salem, Kurnool, and Tinnevelly districts. The Malabar settlement was completed during the year, a very lengthy and difficult work being thus brought to an end. The settlement of South Canara was also practically finished. The land revenue demand in the districts settled and resettled since the commencement of the operations was, in the agricultural year 1904–05, 29 per cent. in excess of the demand prior to the settlements; and the total expenditure of the Settlement Department up to June 1905 was £976,300. In the ryotwari lands the extent of holdings increased by a quarter of a million acres; but the total occupied area under crops amounted to $19\frac{2}{5}$ million acres, or 83 per cent. of the total holdings, against 84 per cent. in the previous year. In the permanently settled area, the land is let and sublet, the number of tenants being $2\frac{1}{5}$ millions, but the number of actual cultivators being stated as nearly seven millions. The relations between landlords and tenants were fairly satisfactory in the year under report, and there was little resort to coercive processes for the recovery of rent.

Bombay.

The establishment of six permanent surveyors sanctioned for each of the three divisions of the Bombay Presidency proper was chiefly engaged in miscellaneous measurement work and the preparation of survey papers. The most important new work undertaken was the survey of the talukdari estates in Ahmedabad. Revision settlement rates were introduced into six talukas, and proposals for revised settlement were prepared for fifteen talukas. Revised rates were also introduced into several Government and alienated villages, and also into lands commanded by the Jamrao Canal in Sind. There was an increase of about 60,000 acres in the total area under occupation in the Presidency, but there was a decrease in the area under crops, equal to 1 per cent. in the Presidency proper, where the area fell to 4·6 per cent. less than that of 1895–96, before the famine period; while the fall was 11·6 per cent. in Sind, where there was a low inundation. The long series of bad years seems to have put some check on the acquisition of land by the non-agricultural classes, though in Kolaba and Ratnagiri the number of transfers, mortgages, and sales is reported to be on the increase, and the land appears to be rapidly passing into the hands of non-agriculturists. Taking the Presidency as a whole, mortgage transactions decreased, while the number of sales remained steady. The effect of the Act of 1901, declaring the right of the Government to make grants of unoccupied lands without conveying the power of transferring them, has been greater in some districts than in others; in Kaira, a total area of 45,700 acres had been granted on the new tenure by

the end of the year 1904–05, in Panch Mahals 78,300 acres, in Khandesh 177,500 acres. In other districts, especially in the Deccan, the restricted tenure has made less headway. LAND REVENUE.

## CONDITION OF THE PEOPLE.

The following general notes on the condition of the people during the year are based on the observations recorded by the Provincial Governments :—

*Bengal.*—The condition of the people was on the whole prosperous during the year 1904–05. Some distress was apparent in certain districts arising from various causes, such as the prevalence of plague in the Patna division, severe floods in the Bhagalpur division, and a partial failure of staple crops in Burdwan, but it was nowhere of so serious a nature as to affect the general material prosperity of the province as a whole. The price of rice was generally lower than in the preceding year, though prices of foodstuffs showed considerable fluctuations. There were no changes to record in the rates of wages.

*Assam.*—The year was a prosperous one for the ryots of the Assam valley, in spite of floods, and of the *kala-azar* disease, which still prevailed in some tracts. In Cachar and Sylhet, also, the demand for land continued, and the prosperous condition of the cultivators remained undisturbed.

*United Provinces.*—The year ending on the 30th September 1904 was the last of a series of fat years; the cultivated area was the largest ever known; a downward tendency in the prices of food grains, coupled with a great demand for labour, did much to improve the condition of the working classes. The general prosperity is shown by the ease with which Government dues were collected, by the expansion of the excise revenue, and by the large increase of stock disclosed by the quinquennial enumeration of cattle. Except a small area in the Tarai, there was not a deteriorated tract in the provinces in October 1904. But the frost and the drought of 1905 came, at a moment when the people at last had reason to congratulate themselves on a return to the old order of good harvests and low prices. Up to nearly the end of the year prosperity, tempered by plague, was the prominent feature. Since then, Bundelkhand is again thrown back by famine, and agriculture is disorganised in parts of the Agra division.

*Punjab.*—Like the preceding year, 1904–05 was a year of average prosperity, except for the increasing virulence of plague. In the autumn of 1904 the districts of the south-eastern Punjab did well after a succession of bad harvests; though the monsoon was bad, it was worst in the districts protected by irrigation. The spring crops of 1905, in spite of frosts of exceptional severity, was very good. Plague continued to affect agricultural operations, and the earthquake of April 1905, though just outside the period under report, caused widespread destruction of water channels, and heavy losses in cattle and agricultural homesteads. The recovery in the price of land continued. Prices of food grains were low, in view of the good harvests.

*North-West Frontier Province.*—An excellent harvest in the spring of 1904 and a fair autumn crop, following a year of comparative prosperity and easy prices, made the condition of the people generally prosperous. Prices fell to an average which had not been reached in the preceding twenty years, and with this there came naturally an increase in the volume of external trade. This favourable state of affairs also extended to the tracts beyond the administrative border.

*Central Provinces and Berar.*—In spite of inadequate rainfall, the improvement in the economic condition of the people manifested in the two preceding years was fully maintained. Except for a disappointing rice crop in the Wainganga valley, the harvests were only slightly below the normal level. In the south of the Provinces the demand for labour of all kinds was unusually great, and wages rose considerably. The birth rate was the highest for many years, and the death rate below the average of the last ten years, in

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spite of plague. Expanding cultivation and thriving trade brought employment and profit to all classes. Negative evidence of the progress of material prosperity is afforded by the statistics of crime, which show that the low figures recorded in the previous year have not appreciably advanced.

*Burma.*—A partial failure and uneven distribution of the autumn rains spoilt what had early in the season promised to be a bumper crop of rice. There was, however, no suspicion of scarcity, and in Lower Burma good prices for surplus paddy were maintained. Agricultural conditions in Upper Burma were on the whole more favourable. The material prosperity of the people continued to improve, and there was no check to the steady extension of cultivation.

*Madras.*—The season was unfavourable in 1904–05, the rainfall being much below the average during both seasons, and the prices of the principal food grains rose in consequence, in almost all districts reaching or exceeding the level fixed as a warning of the approach of distress. There were no appreciable changes in the rate of wages, except that there was a noticeable fall in the wages of agricultural labourers in Bellary, the rate having been specially raised in the preceding year by the evacuation of several villages on account of plague. There was an increase of crime, a decrease in the area of cultivation, and a fall in the export trade of the Presidency. The birth rate fell, and the mortality from plague increased.

*Bombay.*—The hopes raised in the preceding year by the apparent return of normal monsoon conditions, and by the real advance in prosperity, were doomed to be short lived, and a rainfall both insufficient and unseasonable added one more lean year to the records of the Presidency. In Northern Gujarat test works and relief works were necessary in certain tracts, but the distress was not acute, and the works did not attract large numbers, the people subsisting for the most part on the produce of their cattle, for which fodder was available throughout most of the season. There was a slight increase of crime of the less serious kinds in the Presidency, but serious crime diminished to an appreciable extent. The excise returns indicate that the people were not so hard pressed as to be compelled to abstain from their favourite luxuries. The year was marred by a poor monsoon, but it is described as one of progress and moderate prosperity in most directions in the Presidency.

## COLLECTION OF THE REVENUE.

The fluctuations of the land revenue in past years may be seen in the following table, which does not include that part of the land revenue receipts which is credited to "Irrigation":—

| | Land Revenue Receipts excluding Receipts due to Irrigation. | Variation (Average of Five Years, 1881-85=100). |
|---|---|---|
| | £ | |
| 1861–65 (five years' average) | 13,287,000 | 90·1 |
| 1866–70 " " | 13,327,000 | 90·4 |
| 1871–75 " " | 13,977,000 | 94·8 |
| 1876–80 " " (includes the great famine of South India). | 14,076,000 | 95·4 |
| 1881–85 " " | 14,748,000 | 100·0 |
| 1886–90 " " | 15,445,000 | 104·7 |
| 1891–95 " " | 16,522,000 | 112·0 |
| 1895–96 (single year) | 17,467,000 | 118·4 |
| 1896–97 " (famine year) | 15,983,000 | 108·4 |
| 1897–98 " | 17,122,000 | 116·1 |
| 1898–99 " | 18,306,000 | 124·1 |
| 1899–1900 " (famine year) | 17,205,000 | 116·7 |
| 1900–01 " | 17,503,000 | 118·7 |
| 1901–02 " | 18,288,000 | 124·0 |
| 1902–03 " | 18,437,000 | 125·0 |
| 1903–04 " | 19,234,000 | 130·4 |
| 1904–05 " | 18,954,000 | 128·5 |

The total advances made by Government to cultivators in the financial year 1904–05 are given as follows in the Accounts of the Government of India:—

| | By the Government of India. | By Provincial Governments. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Advances for improvement of land | 6,779 | 106,476 | 113,255 |
| „ relief of agriculturists and similar purposes. | 5,943 | 184,328 | 190,271 |
| Total | 12,722 | 290,804 | 303,526 |

The details for the agricultural year will be found below under each province. A Resolution on the principles to be followed in granting loans under the two Acts has been published by the Government of India in December 1905.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The figures of the revenue demand for each of the last three years are given as follows:— Bengal.

| | 1902-03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | £ | £ | £ |
| Permanently settled estates | 2,155,269 | 2,154,139 | 2,154,096 |
| Temporarily settled estates | 239,846 | 237,499 | 236,460 |
| Estates under the direct management of Government. | 288,837 | 306,450 | 317,905 |
| Total | 2,683,952 | 2,698,088 | 2,708,461 |

The total amount collected during the year under report, including receipts on account of the small arrear demand, was approximately equal to the current demand, while the receipts on account of the current year's revenue, taken separately, were rather more than 97 per cent. of the amount falling due. This percentage is again satisfactory, though slightly below the corresponding percentage of the preceding year; and the balance outstanding, of the current and arrear demand, was only £78,100, a result due to the fairly favourable crops. The number of estates which became liable to sale for non-payment of Government dues was 12,654, and of these 1,192, or 9·4 per cent., were sold, against 1,245 in the previous year. Under the Public Demands Recovery Act, 168,300 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 173,200 in the previous year; and these resulted in 100,700 cases of attachment of property, and 5,954 cases of sale, compared with 6,427 sales in 1903–04; while 89 defaulters were imprisoned. Defaulters may deposit the amount due, with a penalty, within 30 days after the sale of the property under the certificate system; and thus have the sale set aside, and recourse is had to this procedure in fully one-quarter of the cases in which a sale is carried out. Defaulters are imprisoned only when there is good reason to believe that they are in a position to pay; and the imprisonment has the effect of making them pay in many instances; upon which they are released. Advances to agriculturists under the Loans Acts amounted to £21,200, the larger part under the Agriculturists' Loans Act. In the six years, 1898–99 to 1904–05, the total of the advances under the last-mentioned Act amounts to £58,100, and of this, £35,500 has been repaid and, including interest, a total of £23,500 was outstanding.

The gross rental of the 43 districts in which the Bengal Cess Act was in force was returned for road cess purposes at £12,086,600 for the year 1904–05, which is slightly above the assessment of the previous year, as

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compared with £8,745,000 for 40 districts in 1873. The three added districts represent a rental of £349,700 only. The current demand of land revenue in all these districts, comprising practically the whole province, amounted to about 22½ per cent. of the rental valuation given above. The road and public works cess together amount to one anna in the rupee, *i.e.*, 6¼ per cent. additional.

United Provinces.

The latest report on land revenue affairs in the United Provinces relates to the year ending 30th September 1904. The monsoon of 1903 was not well distributed, but the seasons, especially the spring season, were on the whole favourable to agriculture. The cultivated area of autumn crops was a million acres below that of the preceding year; but the spring crops more than made this up, with an increase of two millions of acres. There was thus an excess of one million acres over the previous "record" crop. The demand and collections of land revenue in the last three years are given as follows:—

| | 1901-02. | 1902-03. | 1903-04. |
|---|---|---|---|
| | £ | £ | £ |
| Land revenue, current and arrear — demand | 4,280,315 | 4,313,388 | 4,286,960 |
| Land revenue, current and arrear — collections | 4,174,487 | 4,220,004 | 4,229,441 |

The apparent check in the progress of the revenue demand is due to the fact that the large reductions of revenue in Bundelkhand, granted on account of deterioration in 1901, and formerly shown as suspensions and included in the demand in the table above, were treated as remissions, and excluded. Taking this and sundry other reductions of the demand into account, the percentage of collection was practically 100 per cent., the outstandings being merely nominal, a most satisfactory result. The other headings of revenue dealt with in the land revenue report, but not strictly classed as land revenue, are the occupiers' rate (receipts, £511,400) and the owners' rate (receipts, £17,300), which constitute payments for irrigation, besides cesses (receipts, £705,600), &c. As regards coercive processes, the figures were generally well below those of preceding years, the collection of revenue being carried out with little friction. There were 70 attachments of immovable property, 116 sales of movable property, and 471 cases in which defaulters were detained in custody. Of the 145 estates under attachment, 103 were released during the year. The amount of the loans sanctioned under the Land Improvement Loans Act and the Agriculturists' Loans Act was £16,600, divided about equally between the two Acts, and issued to a large extent in Bundelkhand.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1904. The agricultural conditions of the year were good, and the harvests were considerably better than they were in the previous year, both as regards area and yield. The fixed land revenue demand for the year amounted to £1,381,200, of which £1,349,100, or 97·7 per cent., was collected. Collections were made promptly and without much difficulty in most parts, and it is specially noteworthy that the Hissar district had so far recovered from the effects of bad seasons as to make up a good share of the arrears of revenue outstanding there. The total amount of revenue which it was necessary to suspend was £25,200, or less than one-third of the total suspended in 1902-03. Suspended revenue to the amount of £62,100 was recovered, and there remained at the end of the year under report a recoverable balance of £123,400 under suspension, for the most part in the Delhi division. The "fluctuating" system of land revenue, applied for the most part either to canal-irrigated lands or to lands subject to floods, seems to be gradually increasing in popularity, and it is being steadily extended; about one-eighth of the cultivated area of the province, including the Chenab and the Jhelum colonies, is under fluctuating assessment, the principle of which is that the demand varies with the crop. The revenue under this heading amounted to £250,200 in 1903-04. In addition to land revenue proper, "miscellaneous land revenue" was collected to the amount of £80,700. The number of writs of demand issued against

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defaulters fell to 16,600, and that of warrants to 7,300; movables were sold in 2,765 cases, against 3,899 in the previous year; the severer processes, of imprisonment, or sale or management of estates, numbered only 29 in all. These figures show a distinct improvement, though there is still room for increased attention to the matter in some districts. The advances during the year under the Agriculturists' Loans Act amounted to £10,000, and £7,700 was advanced under the Land Improvements Act.

North-West Frontier Province.

The report for the North-West Frontier Province covers the same period as that for the Punjab. The season, as in the parent province, was, on the whole, favourable, and though crops failed, owing to early cessation of the monsoon, over about 20 per cent. of the area sown with autumn crops, spring sowings were exceptionally large, and the harvested area of the two crops together was far above the normal. The fixed land revenue demand was £106,200, of which more than 99 per cent. was collected, besides a small amount due for arrears. Fluctuating and miscellaneous land revenue between them contributed £15,500. Coercive processes were fewer in number than in the preceding year, in spite of vigorous action in Peshawar, where prompt realisation of revenue is always difficult. They included 1,232 warrants and 111 cases of attachment of movable property (93 cases in Peshawar). The agricultural advances made during the year amounted to £5,100.

Burma.

Except in parts of the upper province, the agricultural season of the year ending in June 1905 was not very favourable in Burma. But notwithstanding the adverse conditions the total area under crops increased by nearly 600,000 acres, and exceeded 12½ million acres, the area under direct assessment being 440,000 acres greater than in the previous year. As the result of this increase the land revenue demand for the year rose by about 7 per cent., other heads of revenue usually included in this account showing an equal improvement. The actual figures for the last two years are shown in the margin. The collections of current land revenue amounted to £1,532,200, which is 7 per cent. in excess of the figure for 1903–04. There was a rise in the yield from the household tax, or *thathameda*, caused, it is supposed, by the favourable season of the preceding year, which led former emigrants to return to their homes in Upper Burma, where alone this tax is levied. The number of persons assessed to capitation tax rose to 1,205,300, and the yield showed a corresponding increase. The river and other fisheries are a considerable source of revenue in both the upper and the lower parts of the province, and there was a moderate increase in the receipts under this heading, in spite of a rather unsatisfactory fishing season. The heading "other sources" includes receipts from petroleum royalties, from ruby mines, from water rate, &c. Losses of cultivators, owing to the unfavourable season and outbreaks of cattle disease, caused great difficulty in the recovery of land revenue, and more resort was had to some of the coercive processes; but there was a noteworthy decrease in the number of processes against the person of defaulters. The amount of agricultural advances was £30,400.

| — | 1903–04. | 1904–05. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,454,381 | 1,556,256 |
| Household tax - | 309,412 | 326,543 |
| Fisheries - - | 193,859 | 198,636 |
| Capitation tax - | 327,577 | 335,535 |
| Other sources - | 134,918 | 171,918 |
| TOTAL - - | 2,420,147 | 2,588,888 |

Central Provinces.

The latest land revenue report from the Central Provinces is for the year ending in September 1904. In spite of its late onset, the monsoon of 1903 was very good, and the autumn crops yielded well, with a marked effect on the prosperity of the rice districts. The spring harvest was also generally up to the average. The demand on account of the land revenue of the year under the general system of the province stood at £570,000, reduced by suspensions and remissions to £565,300, to which may be added £6,900 for arrears outstanding. The collections were very satisfactory; almost in every district realisation was made practically in full. There was a further demand on account of land revenue not on the roll and miscellaneous revenue, current and arrear, amounting in all to £25,100; and the receipts under these heads came to £23,900. Coercive processes again showed a general decline; 256 defaulters were arrested and only 6 imprisoned; attachments and sales of movable property numbered 1,024 and 61

LAND REVENUE.

respectively, against 1,713 and 197 in the preceding year; and the estates sold numbered only 5. Advances made during the year under the Land Improvements Act and the Agriculturists' Loans Act amounted to £20,300. The amount of these loans outstanding at the end of September 1903 was £109,600, extensive remissions having been made, and large sums repaid by the borrowers; about half of the outstanding balance does not bear interest.

Berar.

The latest report available respecting land revenue administration in Berar relates to the year ending on the 31st July 1904. The rainfall was above the average during the monsoon period, and some damage was done to the crops; but the spring crop season was favourable, and on the whole the agricultural year was a prosperous one. The land revenue demand for the year rose from £512,800 to £567,600, owing to revision of settlements, and of this amount practically the whole was collected during the year. The arrears outstanding were inconsiderable, and were almost wiped off by remissions made in two taluks to meet the lingering effects of the late famine. The realisation of the revenue, always easy in Berar in normal years, was achieved with even less than the usual recourse to coercive processes. No defaulter was imprisoned for non-payment of revenue, and no personal property sold; and the area of land sold for the recovery of revenue was insignificant. The amounts advanced under the Land Improvements Act and the Agriculturists' Loans Act were only petty.

Assam.

The rainfall in Assam during the year ending on the 30th June 1905 was above the normal, but except during the winter, when cold and lack of rain did some harm, the conditions were generally favourable to agriculture. The current land revenue demand amounted to £404,500, of which more than 94 per cent. was collected, besides a small amount recovered on account of arrears. The new system of collection, under which smaller areas are taken as the unit, has proved a success, and is being generally introduced. In addition to the above sum, £29,800 was collected under the heading of miscellaneous land revenue. The number of sales of land for non-payment of revenue was 594, against 536 in the previous year; and sales of movable property increased from 453 to 973, much of this increase occurring in Sylhet. The amount of agricultural loans granted in Assam is still insignificant.

Madras.

In the Madras Presidency the rainfall during the year ending on the 30th June 1905 was in considerable deficiency throughout, excepting in a few coast districts. The total demand on account of the year for land revenue, including charges for irrigation and miscellaneous receipts, was £3,835,200, besides cesses amounting to £554,100, and the total collections were £4,334,300, including arrears. These figures show a substantial decline as compared with the preceding year, owing to the unfavourable season, which caused the area of ryotwari lands from which crops were gathered to fall from $19\frac{1}{3}$ to $18\frac{1}{5}$ millions of acres. The uncollected balances of current dues and of arrears at the end of June 1905 amounted to £82,700, of which 86 per cent. had been collected or written off by the end of November 1905. Of the above land revenue demand, a sum of £332,800 represents land revenue due from permanently settled estates, and £50,500 quit-rents from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. The number of ryotwari (peasant proprietors') villages fell to 24,100, but the area of their holdings was higher, being about 24 millions of acres; a decrease in most districts caused by the unfavourable season, was balanced by the addition of a large newly-settled area in the district of South Canara. The land revenue demand on this area was £2,945,300, putting aside cesses and certain miscellaneous charges for water, &c., which together amounted to £506,600. There was an increase in the number of distraints and attachments of property, also in that of sale notices, this being partly accounted for by the expectation of remissions which induced ryots to withhold payment in Chingleput and other districts. But the number of sales of real property fell to 4,215, the percentage borne by sales of all classes of property to the number of notices being 4·18, against 5·46 in 1903-04. The area of land so sold was 23,000 acres; a considerable proportion of it was of inferior quality, and was bought in by the Government at a nominal price. Advances under the Land Improvements Act and the Agriculturists' Loans Act amounted to £33,400.

LAND REVENUE. Bombay.

The most recent report available for Bombay relates to the year ending on the 31st July 1904. The rainfall was both timely and sufficient, and even in Gujarat, where it was below normal, there was no actual deficiency, and a large out-turn of cotton, fetching high prices, greatly helped to promote agricultural prosperity. In Sind the inundation was a good one. The total demand on account of land revenue, including the demand on account of former years, amounted to £2,888,900, compared with £2,746,700 in the previous year. Collections amounted to £2,630,400, a result which was better than that of the previous year, both in respect of its proportion to the demand, and also in actual amount, owing chiefly to the good inundation in Sind. The number of occupancies increased slightly in all divisions with the exception of the southern, and stood at 1,529,000. The number of distraints for non-payment of revenue fell from 2,222 to 1,831, showing that less difficulty was found in making the collection than in the previous year. The amount of remissions in the Presidency proper fell from £198,300 to £45,100 in the year ending on the 1st August 1903, and the outstanding balances on account of that year and previous years stood at £206,700, against £543,500 on the 1st August 1902. The agricultural advances made in the Presidency proper had also fallen from £266,700 in 1901–02 to £138,500 in 1902–03, while in Sind the advances increased to £47,900, and the outstanding balances of revenue to £69,500.

## WARDS' ESTATES.

WARDS' ESTATES.

Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been made, to a large extent, with this object. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage them, or of persons declared by the local Government, at their own request, to be disqualified for managing them. Since that year, various provincial Acts have been passed, giving to the Government further powers of putting estates under the control of the Court, without consent of the owners, when the latter are in a special degree unqualified for their proper management. The duty of the Courts is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way.

Bengal.

In Bengal 176 estates were under the management of the Court of Wards for the whole or part of the year 1904–05, with a total rent and cess income of £613,600. The collection of rents and cesses, including arrears, amounted to 96 per cent. of the current demand. With other items, the receipts of the estates amounted to £1,201,400. The disbursements were £1,068,900, of which £169,700 was for Government revenue and cesses, £45,800 for dues of superior landlords, £65,100, or 10·6 per cent. of the rent and cess demand, for cost of management, £97,900 for wards' and family expenses, and £204,400 for investments and payment of debts. The aggregate cash balances at the end of the year amounted to £132,600, together with Government securities to the value of £507,700. The total of the debts stood at £1,210,400, of which £427,900 represents the debts of the Bettiah estate, which is involved to the extent of more than three and a half times the amount of the rent-roll. The final statement regarding the results of management of the large Tikari estate, which was released during the year, is not available. None of the twenty-six estates taken under management were of first-rate importance. The question of contribution from wards' estates for the maintenance of district or divisional demonstration farms was under consideration, in connection with the development of the Agricultural Department.

United Provinces.

The number of estates under the Court of Wards in the United Provinces at the close of the year ending in September 1904 was 203, with an aggregate rent-roll of £436,500. The season was on the whole a good one, and current rental collections amounted to 96·3 per cent. of the demand,

WARDS' ESTATES.

while 25·7 per cent. of the arrears was paid up. The aggregate receipts of all the estates under management for the whole or part of the year was £680,800, and the charges amounted to £670,200, of which £205,200 was for the Government demand, £61,200 was for the education and maintenance of the wards, £19,400 for improvements, and £210,100 for repayment of debts, the cost of management falling at the rate of 9·5 per cent. of the gross income. The total liabilities of all the estates under management, including debts previous and subsequent to assumption of charge, were £2,742,400, of which £1,092,700 had been repaid, while £969,100 had been replaced by more favourable loans. Of the twenty-one estates taken over during the year none were of much importance. The sixteen estates released had, when management was assumed, a total rent-roll of £9,800, which had been increased to £14,000, in spite of an expenditure in the meantime of little less than £50,000 on improvements, payment of debts, &c. The account given of the agricultural banks started on the estates continues to be unsatisfactory on the whole.

Punjab.

At the end of September 1904 the number of estates under the management of the Punjab Court of Wards was 39. Only one new estate, of little importance, was brought under management. The six estates released during the year show a marked financial improvement as the result of a few years' management. The gross income of all the estates under management amounted to £80,600, besides £16,200 obtained by loans and sale of properties; and the expenditure, excluding investments and repayments of debt, amounted to £46,000. The cost of management was 5·7 per cent. of the gross income; £25,300 was spent on repayment of debts, and £22,100 was invested. Village cooperative credit banks had not yet been established on the wards' estates.

North-West Frontier Province.

There were 7 estates under the Court of Wards in the Frontier Province during the year ending in September 1904, with receipts amounting to £6,000 and a total expenditure of £6,200. The total liabilities at the end of the year were £15,800. At the end of the year sanction was received for the extension to this province of the new Punjab Court of Wards Act, with certain modifications of form.

Central Provinces.

In the Central Provinces the policy of relieving the Court of Wards of the management of hopelessly encumbered estates was pursued during the year ending in September 1904, and the result was a decline in the number of estates under management from 107 to 99. Of the latter number, thirteen, including eight newly taken over estates, and five leased or privately managed, are not included in the statistics given. The rental demand in the remainder was £46,700, of which £43,400 was collected. Including other sources, the gross income of the year amounted to £73,100. The expenditure was £56,200, including £25,500 for Government dues. The cost of management, owing to the character of the estates, and the lowness of rents, often bears a higher proportion to the rental in the Central Provinces than in other provinces. For the year under report it stood, over the whole province, at 20 per cent. of the rental, or 13 per cent. of the gross income—a high percentage, but less than in the previous year. The debts were reduced by a payment of £16,000, and stood at £63,900.

Madras.

Thirty-two estates remained under the control of the Madras Court of Wards at the end of the year 1904–05, one having been released and two taken under management during the year. The released estate, which had been under the Court for about seven years, was handed over in a much improved condition, the rent-roll being 42 per cent. larger, and the debts having been cleared off. There is nothing to remark about the estates taken under management. The season was unfavourable on the whole, and only 66 per cent. of the holdings was under cultivation, against 77 per cent. in the previous year. Conditions were specially bad in the large estates of Karvetnagar and Kalahasti, which have been under management since 1899 owing the financial embarrassment of the proprietors. Including remissions, there was a net fall of £44,200 in the net demand (£187,500) for the current year, the greater part of the fall occurring on these two estates, and the recoverable balance at the end of the year was 16·6 per cent. of the demand; the demand

WARDS' ESTATES.

on account of arrears amounted to £109,400, of which £34,600 was collected during the year, and £10,600 written off as irrecoverable. The aggregate cash receipts from all sources amounted to £287,200; the expenditure to £298,400, including £83,600 invested and £17,100 spent on repayment of debts. The cost of management rose to 15·4 per cent. of the ordinary receipts. The balance at the credit of all estates, invested and uninvested, at the end of the year was £404,300. The schemes for the liquidation of the huge liabilities of the Kalahasti and Karvetnagar estates were still under consideration; but, the proprietors having died, the estates have since been handed over to the new proprietors with the liabilities undischarged. The development of the resources of the estates as a whole was receiving much attention, and an agricultural expert has been engaged in England for service under the Court.

Bombay.

In Bombay the estates under Government management during the year 1904–05 were of several kinds, namely, estates under the management of collectors or other guardians, estates in charge of the Talukdari Settlement officer, and encumbered estates in Sind. Outside Gujarat the estates were of small area. The estates of the second category are all in Gujarat; they included 621 estates, with a nominal gross revenue of £73,000, of which only £24,900 was realised during the year, owing to the badness of the season, which also necessitated the grant of Government loans to the amount of £7,800. The manager of encumbered estates in Sind had 484 estates in charge. The year's revenue of these estates amounted to £56,600, and the expenditure to £61,400, which included £15,800 spent in the liquidation of loans and private debts.

# CHAPTER VIII.

## OPIUM REVENUE, AND TAXATION.

Opium.

### Opium.

General.

The opium revenue is partly raised by a monopoly of the production of the drug in Bengal and the United Provinces, and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the United Provinces, with the unimportant exception of a small amount of cultivation for local use in the Punjab and Ajmere-Merwara, and on the frontier of Upper Burma; and the area on which cultivation is permissible is calculated each year with a view of obtaining a stated amount of opium, with the proviso that, under present orders, the area under poppy in 1899–1900, namely 627,300 acres, is not to be materially exceeded. The cultivator of opium in the monopoly districts receives a licence, and is granted advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur. This price has been Rs. 6 per seer since 1895. The supply of prepared opium required for consumption in India is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium (known as Malwa opium) is also grown in Baroda and in some of the Native States of Rajputana and Central India. Most of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest (of 140 lbs.) for several years until December 1894, when it was raised to £43⅓. It was reduced to £40 in July 1896, and to £33⅓ in October 1897. The rate was altered again, to £40 per chest, with effect from the 7th May 1904.

The yield of the opium revenue during recent years has been :—

| | 1896–97. | 1897–98. | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–1905. |
|---|---|---|---|---|---|---|---|
| Opium Receipts :* | £ | £ | £ | £ | £ | £ | £ |
| Auction sales of monopoly opium. | 3,233,568 | 2,660,697 | 4,109,249 | 4,150,290 | 3,662,600 | 4,678,371 | 5,079,541 |
| Duty on Bombay (or Malwa) opium. | 892,189 | 647,092 | 835,117 | 542,683 | 661,033 | 871,383 | 749,125 |
| Cost of opium issued to the Excise Departments, and miscellaneous. | 147,068 | 145,392 | 157,877 | 159,049 | 174,805 | 186,291 | 192,833 |
| Total - - - | 4,272,825 | 3,453,181 | 5,102,242 | 4,852,022 | 4,498,438 | 5,736,045 | 6,021,499 |
| Opium expenditure, chiefly in Bengal. | 1,657,795 | 1,592,744 | 1,785,875 | 1,608,690 | 1,648,483 | 2,225,744 | 1,967,085 |
| Net Opium Revenue - £ | 2,615,030 | 1,860,437 | 3,316,367 | 3,243,332 | 2,849,955 | 3,510,301 | 4,054,414 |

* This does not include the license fees and duty on opium consumed in India, which amounted to £894,632 in 1904–05, as shown below under "Excise."

The exports of Malwa opium to China averaged 25,500 chests in the ten years ending in March 1901, but had fallen to 17,500 chests in 1901–02 and 19,300 chests in 1902–03. In the year 1903–04, owing partly to a rumoured failure of the China crop, they rose to 25,340 chests; but in the year under report the high prices ruling in Bombay, together with the well-stocked condition of the China market, resulted in a decline to 18,986 chests. Depletion of stocks in India, particularly of old opium in Malwa, owing to a bad season, the rise in silver, and the increase of Rs. 100 per chest in the duty, contributed to raise prices. The average price for one-year old opium, including export duty, was Rs. 1,480 per chest, and that for two-year

old opium Rs. 1,647 per chest, against Rs. 1,223 and Rs. 1,332 per chest, respectively, in the preceding year. The amount of Malwa opium imported and lodged in the Bombay warehouse was 20,533 chests, against 27,498 chests in 1903–04; and 1,000 chests were sold for consumption in the Presidency, including Native States, and 690 chests were supplied to Madras Presidency. OPIUM. Bombay.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop was sown but failed, is shown in the margin; the figures for the year ending in October 1904 are subject to correction, and probably rather overstate the the actual area. The weather was not very favourable for the crop, and the yield per acre was less than in 1902–03, though better than the average of the preceding seven years. Bengal.

| | Acres. |
|---|---|
| 1896-97 - | 581,181 |
| 1897-98 - | 546,671 |
| 1899-1900 - | 627,311 |
| 1901-02 - | 591,837 |
| 1902-03 - | 582,807 |
| 1903-04 - | 642,831 |

The opium is received and prepared at the Government factories at Patna and Ghazipur, where the out-turn for the year included 4,900 chests of opium for the Excise Department, about 400 lbs. of various opium alkaloids, 23 maunds of medical opium, and 49,900 chests of provision opium for the Chinese market. During the financial year ending in March 1905, 48,000 chests of provision opium were sold in equal proportions from Behar and Benares, and the average price realised per chest was Rs. 1,587. The average cost per chest amounted to Rs. 492. The exceptionally high prices realised at the sales in the beginning of the year 1904 were not quite maintained, but after falling to Rs. 1,422 per chest in October of that year the price rose as high as Rs. 1,621 in February 1905. The average price during the financial year may be compared with the average for 1903–04, which was Rs. 1,462 per chest, while the averages were Rs. 1,145 and Rs. 1,297, respectively, in the two preceding financial years.

## SALT. SALT.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from one-fifth of a rupee (in Burma) to $3\frac{3}{4}$ rupees (in Bengal) per maund of $82\frac{2}{7}$ lbs.: during the greater part of the year 1904–05 the rate was 2 rupees over the whole of India, excepting Burma, where it was one rupee per maund, the Kohat salt mines, the produce of which paid duty at the rate of Rs. $1\frac{1}{2}$ per maund of $82\frac{2}{7}$ lbs., and the mines in the Mandi State, where the rate of duty was 6 annas per maund, the share received by the Government of India being 4 annas per maund. These rates had been fixed in March 1903, and showed a reduction of 20 per cent. on those previously in force, except in the cases of Burma, where the rate remained the same, and Kohat, where only a small reduction was made. The reduction in the tax was reported to have had an important and almost immediate effect in reducing the price of salt in those parts of the country where no abnormal circumstances intervened. It was, however, doubtful how far the reduction, though it benefited consumers who buy salt by the seer (2 lbs.), and, to a smaller extent, all those who were in a position to purchase salt by weight and as a commodity by itself, reached the poorest classes, who take their salt in doles from the baniahs along with other articles. General.

A further reduction in the salt duty came into force in March 1905, when the general rate was reduced to Rs. $1\frac{1}{2}$ per maund. No change was made in the rate for Kohat salt, which is, therefore, now the same as that levied on other Punjab salt; and the Burma rate remained unchanged. The rate on Mandi salt was reduced to $4\frac{1}{2}$ annas per maund.

Reports which have been received since this latest remission had its effect show that the cumulative reduction of one rupee has had a result proportionally greater than the preceding reduction of eight annas. The cheapening of the retail price, and often the cause to which it is due, have become known among even the humblest classes; a purchase which formerly sufficed for three or four days now lasts the same family for five or six days; more salt is given to the cattle; in some provinces the consumption per head has risen by 10 per cent. in the last three years; and the annual saving per head of the population is reckoned at about one day's wages of the poorest of the working classes. The total consumption of salt in India was larger in 1904–05 by nearly 1,800,000 maunds (or 4·7 per cent.) than in the preceding

SALT.

year; and it is anticipated that the amount consumed in 1905–06 will prove to have been greater than that of 1904–05 by some 1,600,000 maunds, or 4·1 per cent.

The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and for part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the United Provinces of Agra and Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; and importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption.

Some of these salt sources belong to, or are worked under the direct control of, the various Governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt from foreign countries is freely permitted. Manufacture is not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, in the sea-coast districts of Bengal.

The Salt Revenues and Charges in the year 1904–05 were as follows :—

| PROVINCE. | Price of Government Salt, and Excise on Salt made locally. | Duty on Salt imported from England. | Duty on Salt imported by Sea from other Places. | Miscellaneous. | TOTAL. | Charges. | Net Salt Revenue. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| Northern India - - | 1,118,799 | — | — | 10,222 | 1,129,021 | 69,070 | 1,059,951 |
| Burma - - - | 16,011 | 37,592 | 55,606 | — | 109,209 | 1,582 | 107,627 |
| Bengal - - - | 171 | 816,179 | 663,195 | 11,229 | 1,490,774 | 20,656 | 1,470,118 |
| Madras - - - | 1,294,864 | 278 | 887 | 6,504 | 1,302,533 | 133,474 | 1,169,059 |
| Bombay - - - | 1,273,167 | 1,559 | 858 | 47,647 | 1,323,231 | 119,401 | 1,203,830 |
| TOTAL 1904–05 - | 3,703,012 | 855,608 | 720,546 | 75,602 | 5,354,768 | 345,102 | 5,009,666 |
| TOTAL 1903–04 - | 3,647,469 | 808,640 | 723,521 | 70,835 | 5,250,465 | 331,191 | 4,919,274 |

The charges above shown do not include a sum of £241,600 paid under treaties in the form of compensation, chiefly to Native chiefs who have assigned the management of their salt sources to the Government of India.

The rate of salt consumption per head of the population differs widely in the several provinces. If the total of licit consumption is compared with the population, the following results appear: — The consumption in the saliferous tracts of Bengal, including Orissa, was 12·86 lbs. per head; in Behar, 9·81 lbs.; in the rest of Bengal, 11·44 lbs.; in Gujarat, 10·6 lbs.; in the rest of Bombay, 12·11 lbs.; in Sind, 8·25 lbs.; in Madras, 17·1 lbs.; in the Central Provinces and Berar, 12·23 lbs.; in the United Provinces, 7·84 lbs.; in the Punjab and North-West Frontier Province, cis-Indus, with Kashmir, 7·47 lbs.; ditto, trans-Indus, 6·98 lbs.; in Central India, 8·64 lbs.; and in Rajputana, 8·21 lbs. These figures compare in most instances very favourably with those of 1903–04, and in no case show any important decrease. The rate of consumption in Burma is not accurately known, but is believed to be high.

The consumption of salt and the duty realised during the last 31 years are shown below. The figures have been taken from the returns of the Director-General of Statistics under the Government of India, and it will be observed that the amount of the duty received shows a divergence from the figures given above.

| — | Quantity. | Duty. | — | Quantity. | Duty. |
|---|---|---|---|---|---|
| | Maunds. | £ | | Maunds. | £ |
| 1868–69 to 1872–73 (average) | 22,973,000 | 3,835,000 | 1899–1900 - - - | 35,058,000 | 5,695,000 |
| 1873–74 to 1877–78 " | 24,184,000 | 3,971,000 | 1900–01 - - - | 35,815,000 | 5,837,000 |
| 1878–79 to 1882–83 " | 27,761,000 | 4,393,000 | 1901–02 - - - | 35,580,000 | 5,780,000 |
| 1883–84 to 1887–88 " | 32,429,000 | 4,141,000 | 1902–03 - - - | 36,663,000 | 5,888,000 |
| 1888–89 to 1892–93 " | 33,432,000 | 5,351,000 | 1903–04 - - - | 37,603,000 | 4,922,000 |
| 1893–94 to 1897–98 " | 34,211,000 | 5,505,000 | 1904–05 - - - | 39,378,000 | 5,069,000 |
| 1898–99 - - - | 35,269,000 | 5,719,000 | | | |

Northern India.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake and the brine

springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab and North-West Frontier Province, part of the United Provinces, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake 4,348,900 maunds of salt were produced in 1904–05, and as this was barely equal to the amount of salt sold, the stocks, reduced by the very bad harvest of the preceding year, were low at the end of the year. Since the year 1870, when the lake was leased by the Government of India, 121⅔ millions of maunds of salt have been taken from it, and the financial results show a total credit balance of £257,000, without taking into account the stock of salt in hand. Fears had been expressed that the salt available in this source was becoming exhausted, but the Director of the Geological Survey of India, having made an examination of the beds, has advised a modified process of manufacture which will, it is believed, indefinitely prolong the salt bearing utility of the lake, if the supply of water remains sufficient. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a charge of 3 pies for clearance; the sales in 1904–05 amounted to 4,379,100 maunds. In the Mayo mine 2,914,100 maunds of salt were excavated. This salt is sold at 9 pies per maund, apart from the duty, and a charge of 6 pies a maund for delivery to the railway; the price of Didwana salt is also 9 pies; Pachbadra salt is sold at the rate of 1½ anna with a charge of 3 pies for clearance; Kohat salt fetches on the average about 8 pies. The total amount of salt which passed into consumption was 8,202,132 maunds, distributed as follows:—

| — | 1903–04. | 1904–05. |
|---|---|---|
| | Maunds. | Maunds. |
| Punjab and N.W. Frontier Province, cis-Indus, including Native States and Kashmir (chiefly rock salt). | 2,683,226 | 2,680,278 |
| Ditto trans-Indus (chiefly Kohat salt) | 381,274 | 404,830 |
| United Provinces (chiefly Sambhar salt) | 3,269,650 | 3,307,188 |
| Behar | 168,101 | 140,358 |
| Central Provinces | 106,270 | 108,360 |
| Rajputana | 868,899 | 936,052 |
| Central India | 539,003 | 541,382 |
| Other places, including Afghanistan | 97,110 | 83,684 |
| TOTAL | 8,113,533 | 8,202,132 |

Bengal.

The salt consumed in Bengal comes from abroad or from other parts of India; several years ago a small amount was annually manufactured at private and Government factories in Orissa, but this manufacture was rendered unprofitable by the opening of the East Coast railway, which admitted Madras salt to Orissa, and it has therefore been discontinued. In the other maritime tracts of the province the manufacture of salt is prohibited, owing to the difficulty of preventing illicit manufacture. A Committee which had been appointed to consider, among other matters, a proposal to amalgamate the Bengal and the Northern India Salt Departments, reported adversely on the project. The amount of salt imported by sea during the year 1904–05 was 12,183,000 maunds, as shown in the margin; there was an increase of 10 per cent. as compared with 1903–04. Nearly half of the total imports came from the United Kingdom, but English salt has in recent years been to a large extent displaced by salt imported from Aden and the Red Sea. Imports of German salt constitute only about 12 per cent. of the whole. The amount of Madras salt carried into Orissa by rail rose from 918,800 maunds to 1,015,300, but the imports of the same article by sea were not maintained. This salt is specially manufactured, and is of high quality, which enables it to compete with Liverpool salt. The average

| Salt Imports by Sea. | 1903–04. | 1904–05. |
|---|---|---|
| | Maunds. | Maunds. |
| From United Kingdom | 5,599,000 | 5,918,000 |
| „ Germany | 1,530,000 | 1,468,000 |
| „ Red Sea | 3,529,000 | 4,040,000 |
| „ Persian Gulf | 169,000 | 83,000 |
| „ Madras | 147,000 | 73,000 |
| „ Bombay | 256,000 | 571,000 |
| „ Spain | — | 30,000 |
| Total | 11,170,000 | 12,183,000 |

SALT. wholesale price of salt, including duty (Rs. 2 per maund), at the chief marts of Bengal was about Rs. $3\frac{1}{12}$, having decreased by more than 8 annas since the reduction of duty. The average wholesale price of Liverpool salt in 1904–05 was Rs. $48\frac{5}{8}$ per 100 maunds from the ship's side at Calcutta, exclusive of duty, compared with Rs. $53\frac{3}{8}$ in 1903–04.

The net amount of salt consumed in the province was 11,489,600 maunds, as compared with 11,148,000 maunds in 1903–04. The consumption of salt per head of the population during the last two years is given in the marginal table. The steady rise in consumption, together with the falling price, is satisfactory, and it is anticipated that the further reduction of the salt duty in March 1905 will again lower prices, and thus remove to a great extent the inducements to illicit manufacture. The number of cases in which contraband salt was confiscated was 886 only, compared with 1,510 in the previous year, and the amount of salt so confiscated was small. The number of prosecutions instituted during the year for offences under the salt laws fell to 423.

| —— | 1903-04. | 1904-05. |
|---|---|---|
| | Lbs. | Lbs. |
| Saliferous tracts (including Orissa). | 12·47 | 12·86 |
| Rest of province - - | 11·18 | 11·44 |

Madras. There were in Madras available for the manufacture of salt by solar evaporation 21 Government and 45 other factories. Originally there was a Government monopoly of the manufacture of salt in the Presidency; but in 1882 an attempt was made to substitute private manufacture, and abolish all Government factories. This, however, did not answer, and in 1888 orders were given to establish some Government factories as a check on the prices and quality of the privately manufactured (or "excise") salt. This is the system that now exists. All but one of the factories were worked during the year, and owing to the generally favourable character of the season the quantity of salt manufactured was as high as $9\frac{3}{4}$ millions of maunds, of which amount, no less than $6\frac{1}{2}$ millions was manufactured in private factories. The quantity of salt imported, nearly $1\frac{1}{3}$ million maunds, was also exceptionally high, but the quantity sold for consumption was the highest during the last ten years, and the stocks were no greater at the end than at the beginning of the year. The average wholesale price of "excise" (*i.e.*, private factories') salt works out to over Rs. $3\frac{1}{4}$ annas per maund, or rather more than in the preceding year, but this figure is not considered to be excessive or unreasonable, in view of the lowness of the stocks. Government salt is sold at fixed prices (the usual rate being 3 annas per maund) with a view to controlling the price of "excise" salt; it is reported that the average retail price of salt varied in the several districts between Rs. $2\frac{7}{16}$ and Rs. $4\frac{3}{16}$. Excluding the salt used for fish-curing, or bought by the French Government, the total of salt issued for consumption during the last three years was as follows:—

| —— | 1902-03. | 1903-04. | 1904-05. |
|---|---|---|---|
| | Maunds. | Maunds. | Maunds. |
| Government, excise, and sea-imported salt - | 9,122,219 | 9,930,133 | 10,137,288 |
| Salt imported from Bombay by railway - - | 658,503 | 510,957 | 600,695 |
| | 9,780,722 | 10,441,090 | 10,737,983 |

After deduction of salt exported from the Presidency, which amounted to 1,507,335 maunds, the average consumption per head of the population was 17·1 lbs. in the whole Presidency, including Mysore and Coorg, with the Native States except Travancore and Cochin. The corresponding figure for 1903–04 was 16·5 lbs.

During the year under report there were 135 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 54,877 tons, the season having been favourable for fishing, and 839,080

maunds of cured fish left the yards in a fit condition for use. The cost of the yards to the Treasury was more than covered by the amount received. Prosecutions under the salt laws were less numerous than in previous years; of 2,341 persons charged with salt offences, 353 were released by departmental officers with a warning, and 1,953 were sent for trial. SALT.

The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government, on the Runn of Cutch (Baragra salt); from sea-salt works on the coast; and by importation. Of the sea-salt works one, at Dharasna, is worked by the Government; the remainder, of which there are some hundreds, are owned by, or leased to, private individuals; the imports of salt come chiefly from Goa. The conditions of the year were favourable to salt manufacture, so that in spite of larger removals of salt, both for home consumption and for other parts of India, the stocks in hand increased by the end of the year. The following table shows the issues of salt from each source for the last two years:— Bombay.

| | 1903-04. | | 1904-05. | |
|---|---|---|---|---|
| | Total Issues. | For Local Consumption. | Total Issues. | For Local Consumption. |
| | Maunds. | Maunds. | Maunds. | Maunds. |
| Baragra salt - - - | 2,270,211 | 438,690 | 2,315,497 | 453,830 |
| Sea salt - - - | 6,462,757 | 2,014,264 | 7,654,541 | 2,283,629 |
| Imported salt - - - | 280,855 | 225,366 | 297,052 | 240,610 |
| Total - - | 9,013,823 | 2,678,320 | 10,267,090 | 2,978,069 |

The issues of duty-paid salt in the whole Presidency, excluding Sind, were at the rate of 11·68 lbs. per head of the population, but in Gujarat, as usual, the average was lower, amounting only to 10·6 lbs. per head. The corresponding figures of the previous year were 10·5 lbs. and 9·9 lbs. per head of the population. The comparison is very favourable. The average market prices in nearly the whole of Gujarat and in Khandesh and Belgaum were lower, to the full extent of the 8 annas by which the duty had been reduced. But in the Deccan districts, for some reason which is not very clear, the same result is not reflected in the prices. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt is fixed at $1\frac{1}{4}$ annas per maund, and the purchasers from the works get the full benefit of the reduction of the tax. But the price of sea salt was generally lower than that of the preceding year, when a cyclone had destroyed a large part of the supply. The number of detected offences against the salt law was 1,259, most of them being clandestine removals of natural salt; this figure is 77 per cent. above that of the preceding year, which was a specially low one. Twenty-nine fish-curing yards were open at the end of the year. The quantity of fish brought to be cured in bond was 228,900 maunds, and 68,900 maunds of cheap salt were issued to fish-curers; the fish-curing season thus again showed a marked improvement over that of the preceding year.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 322,000 maunds. The consumption per head of the population is given as 8·25 lbs., against 7·37 lbs. in the preceding year. The average market price of salt is returned as having been Rs. $2\frac{3}{4}$, and it appears that the 8 annas reduction in duty which was enjoyed during the year was only followed by a reduction of 2 annas 5 pies in the retail price, which seems to show that much of the relief in duty remained in the pockets of the vendors. Two fish-curing yards were worked during the year, including one newly opened. All the salted fish manufactured is exported. Sind.

SALT.

Burma.

The amount of imported salt which paid duty in Burmese ports during the year 1904 was 1,349,400 maunds. This comes chiefly from Germany and the United Kingdom, and pays a duty of Re. 1 per maund; imports from Germany constituted about 51 per cent. of the total given above, Liverpool salt comprising 40 per cent., while 9 per cent. was salt from Aden. In 1902 the shipments from the United Kingdom had amounted to no more than 25 per cent. of the total, but the last two years have seen a considerable recovery. The old system under which the excise duty on locally manufactured salt was levied by a composition rate on vessels used for boiling brine, the amount of which varied in different parts of the province, is being replaced by a system of levying duty on actual output, which was introduced into the Mergui and Tavoy districts during the year, in addition to the three districts in which it was already in force. The change is stated to have proved financially successful and to be increasing in favour with the manufacturers. One of its results is an improvement in the accuracy with which the output of local salt can be estimated. The figure for 1904 is given as 582,100 maunds, which is greater than that of 1902 and nearly as great as that of 1901, but much below the output in 1903. The decline may have been partly due to excessive output in that year, but it seems probable that the production was to some extent checked by timidity on the part of the manufacturers, and reluctance to engage in the manufacture under the system of direct taxation. The price of foreign salt ruled generally lower, and that of local salt higher, than in 1903, the Rangoon prices undergoing wide fluctuations. There seems to be no indication that local salt is being rapidly displaced by foreign salt. The consumption of salt is estimated at 1,917,800 maunds. The imports of salted fish rose to 279,000 maunds, owing to the smaller output from fisheries in Burma.

EXCISE.

## EXCISE.

General.

The Government of India have recently, in September 1905, convened a strong committee to consider the progress of excise administration in respect of intoxicating liquors, and to promote reforms therein. In their resolution, which was published in the "Gazette of India" of 9th September, they restate the general principles on which their excise policy is based. They are substantially those laid down in a despatch by Lord Cross, when Secretary of State for India, in 1888, that (1) an extension of the habit of drinking among Indian populations is to be discouraged, and (2) that the tax on spirits and liquors should be as high as may be possible without giving rise to illicit methods of making and selling liquor; subject to these considerations, as large a revenue as possible should be raised from a small consumption of intoxicating liquors. The raising of revenue is not, however, a primary object of excise administration. The revenue is raised, broadly speaking, in two ways, namely, a duty on consumption, whether of spirits or drugs, and a fee for the privilege of vend. It is the relative importance of these in their various forms which marks the distinction between the different excise systems in force. These systems, so far as regards the country spirits, have been roughly classified as follows:—

1. The "out-still" system, arising out of the "farming" system, and developed into the "contract still" system, the common principle of which was the sale of licences to manufacture and sell spirits in local areas, with little control over the amount or quality of the spirit, and no direct duty. This system is a legacy from Native rulers, and has been repeatedly condemned by the Government as a system of general application. It has been abandoned everywhere except in Burma, Bengal and Assam (where its partial replacement is in progress) and in remote and outlying portions of other provinces which are unsuited for anything more advanced, Bengal alone deriving from it any considerable percentage of its country spirit revenue.

2. The central distillery system, with a development known as the bonded warehouse system. This system, under its various forms, is intended to secure that manufacture of country spirits should only be carried on at central spots, where the spirits can be subject to the levy of a direct

duty per gallon on issue; but owing to the difficulty of preventing fraud on the part of the distillers, this system is being gradually abandoned. In the Punjab it has already been superseded, and its supersession is in progress in the United Provinces, in Bengal, and in the Central Provinces.

3. The systems of the third group are modifications of what is known as the contract distillery system, in which the monopoly of manufacture over a considerable area is leased to a contractor or licensed distiller, who manufactures the spirit required for consumption at a large distillery, a fixed still-head duty being levied on its issue. The chief among its variant forms are the minimum guarantee system at present in general use in Bombay, in which the monopoly of sale is combined with that of manufacture, and the Madras contract distillery system, under which licences for retail vend are sold separately.

Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subject to any excise duty. Tea and coffee are also free from excise duties, though there is a small tea cess levied for the purposes of the trade. The proceeds of the excise duty on woven cotton goods manufactured at power mills in India are brought to account under the heading of "Customs."*

The following table gives the excise revenue of 1904–05 for each province under the different heads, as shown in the Finance and Revenue Accounts:—

| — | India (General) | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| License and distillery fees, and duties for the sale of spirits, fermented liquors, and drugs, viz.:— | | | | | | | | | | | | |
| Foreign liquors, &c. | 17,028 | 81,485 | 55,474 | 20,299 | 1,666 | 75,553 | 1,043 | 315 | 1,240 | 29,576 | 25,510 | 309,189 |
| Country spirits | 54,224 | 551,527 | 433,243 | 127,380 | 5,571 | 89,776 | 143,735 | 126,841 | 46,034 | 510,265 | 682,741 | 2,771,337 |
| Toddy | 2,022 | 73,063 | 10,769 | — | — | 29,064 | 2,228 | 1,519 | 5 | 622,673 | 90,558 | 831,93 |
| Opium and its preparations. | 2,484 | 49,170 | 18,239 | 30,108 | 2,388 | 1,437 | 17,842 | 13,933 | 22,713 | 24,060 | 13,653 | 196,027 |
| Other drugs | 3,363 | 121,852 | 125,920 | 22,786 | 2,881 | 3 | 7,517 | 2,108 | 13,771 | 14,954 | 22,763 | 337,918 |
| Duty on opium consumed in India. | 401 | 122,661 | 37,859 | 8,538 | 515 | 285,441 | 29,286 | 16,030 | 104,035 | 33,012 | 59,100 | 696,878 |
| Acreage on land cultivated with the poppy. | — | — | — | 1,727 | — | — | — | — | — | — | — | 1,727 |
| Duty on ganja | — | 117,134 | — | — | — | — | 10,024 | 2,105 | 15,743 | 10,862 | 31,766 | 187,634 |
| Fines, confiscations, miscellaneous. | 3,577 | 2,460 | 171 | 26 | 47 | 4,171 | 48 | 212 | 64 | 4,986 | 5,021 | 20,783 |
| Total Revenue | 83,099 | 1,119,352 | 681,675 | 210,864 | 13,068 | 485,445 | 211,723 | 163,003 | 203,605 | 1,250,388 | 931,112 | 5,353,424 |
| *Deduct*—Charges | *2,063* | *54,578* | *6,183* | *4,257* | *478* | *68,285* | *3,603* | *1,494* | *2,516* | *66,656* | *31,360* | *242,314* |
| Net Revenue, 1904–05 | 81,036 | 1,064,774 | 675,492 | 206,607 | 12,590 | 417,160 | 208,120 | 161,599 | 201,089 | 1,183,732 | 899,752 | 5,111,110 |
| Net Revenue, 1903–04 | 77,565 | 1,032,159 | 623,487 | 182,810 | 13,082 | 450,857 | 167,261 | 131,461 | 200,310 | 1,113,787 | 773,389 | 4,766,168 |

A net sum of £552,400 was yielded by customs duties on exciseable articles imported into India during the year 1904–05, and thus the total net drink and drugs revenue amounts to nearly 6 annas (sixpence) a head on the population affected. The year shows the highest figure which has been reached by the excise revenue.

For the 228¼ millions of the population inhabiting the various excise tracts covered by the statistics, the total number of shops licensed for the

* A customs duty is also levied on all imported spirits, wines and beer, and credited to the head of Customs. The import duty was Rs. 6 per gallon on London proof spirit (Rs. 7 after February 1906); Rs. 6 per proof gallon on liqueurs (changed in February 1906 to Rs. 10 per gallon irrespective of strength); Rs. 8 per gallon, irrespective of strength, on perfumed spirits (Rs. 11 after February 1906); Rs. 2½ per gallon on sparkling wines; Re. 1 per gallon on other wines; and 1 anna per gallon on beer. Opium is subject to a duty of Rs. 24 per seer on importation into India, and other narcotic drugs pay the general import duty of 5 per cent. *ad valorem*.

EXCISE. retail sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :—

| PROVINCE. | Number of Retail Shops licensed in 1904-05 for the Sale of | | | | | Total in 1904-05. | Total in 1903-04. (revised.) | Population of Excise Area, by Census of 1901. |
|---|---|---|---|---|---|---|---|---|
| | Country Spirits. | European Liquors Imported or made in India. | Toddy and Rice-Beer or other Indian Fermented Drinks. | Opium. | Narcotic or Intoxicating Drugs, other than Opium. | | | |
| Bengal | 3,409 | 567 | 29,974 | 1,748 | 3,672 | 39,370 | 39,405 | 74,620,000 |
| United Provinces | 5,993 | 337 | 4,390 | 1,226 | 3,751 | 15,697 | 15,789 | 47,671,000 |
| Punjab | 1,308 | 283 | 41 | 1,398 | 1,238 | 4,268 | 4,331 | 20,306,000 |
| North-West Frontier Province. | 53 | 49 | — | 87 | 94 | 283 | 283 | 2,042,000 |
| Burma | 78 | 441 | 1,455 | 129 | — | 2,103 | 2,187 | 9,187,000 |
| Central Provinces | 7,528 | 139 | 1,406 | 1,362 | 1,238 | 11,673 | 9,534 | 9,305,000 |
| Berar | | | | | | | 2,642 | 2,664,000 |
| Assam | 213 | 58 | 18 | 744 | 298 | 1,331 | 1,346 | 5,760,000 |
| Madras | 10,316 | 647 | 18,992 | 1,204 | 620 | 31,779 | 31,431 | 38,196,000 |
| Bombay and Sind | 2,812 | 262 | 10,116 | 1,090 | 1,261 | 15,541 | 14,005 | 18,534,000 |
| Total | 31,710 | 2,783 | 66,392* | 8,988 | 12,172 | 122,045 | 120,953 | 228,285,000 |

* Of this number 21,130, compared with 19,223 in the preceding year, are licences for home-brewing only, issued in Bengal and Bombay.

The increase of home-brewing licences, mentioned in the footnote, more than accounts for the small growth in the total number of licences, as compared with the preceding year. There were thus, excluding home-brewing licences, 100,915 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,262 of the population, or if the home-brewing licences be included, one shop or licence to each 1,870 of the population as shown in the census of 1901. Special attention is given to the expressed wishes of the inhabitants of a locality in respect of the sites fixed for shops.

Bengal. In Bengal the total excise revenues of 1904–05 and the two previous years, as given in the departmental returns, were as follows :—

| Receipts from | 1902-03. | 1903-04. | 1904-05. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 497,239 | 526,911 | 551,193 |
| Foreign liquors and rum | 41,815 | 40,461 | 42,183 |
| Fermented local liquors, toddy, and rice-beer | 110,227 | 113,213 | 112,560 |
| Opium | 176,810 | 172,806 | 171,840 |
| Ganja, bhang, and their compounds | 225,352 | 230,311 | 238,961 |
| Miscellaneous | 1,072 | 2,729 | 2,640 |
| Total Excise Revenue | 1,052,515 | 1,086,431 | 1,119,377 |
| *Add*—Customs duties levied in the Presidency on imported liquors. | 148,891 | 148,849 | 157,457 |
| Total Revenue from Drink and Drugs £ | 1,201,406 | 1,235,280 | 1,276,834 |

The manufacture and sale of country spirits is carried on in Bengal under two systems, the fixed duty or central distillery system in the south and east, and the out-still system generally in the north and west. These two systems contribute in fairly equal proportions to the excise revenue; but the out-still revenue is slightly higher, and showed a larger increase in the year, owing chiefly to freer bidding at the auctions. In July 1904, however, an officer was deputed to Madras and Bombay to study the systems in force in those

presidencies, and the suggestions and recommendations which he made have been so far adopted that, according to the programme which has received the sanction of the Government, the out-stills will disappear in a few years and the contract distillery system be introduced throughout the province. A successful beginning was made during the year in Midnapore and Orissa, and the new system will be largely extended during the next few years. The small central distilleries are being closed, and liquor will be supplied by a few large distilleries employing the most improved plant and machinery and producing wholesome spirit free from impurities, wholesale and retail prices being carefully regulated so as to avoid the evil effects of a monopoly. At the end of the year under report, however, the reduction of distilleries had not yet come into operation. Excise.

The average incidence of the total excise revenue in Bengal was 3½ annas per head, of which about two-thirds was derived from liquors, more especially country spirits. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated, from statements furnished by the vendors, at about 1½ million gallons at London proof; the amount of imported spirits consumed in the province cannot be stated, but they compete successfully with the country spirits in the districts of the Dacca and Presidency divisions. Issues of country spirits from distilleries rose to 700,100 gallons; and 51,600 gallons of rum, mostly imported from Shahjahanpur, were consumed.

Ganja is grown in the Rajshahi district, under a system of supervision which is being made as close as possible, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. About 8,000 maunds of the drug were produced, of which 5,600 maunds were consumed in the province. The number of shops for its retail sale in the province was increased by 34 to 2,827. Other forms of hemp drugs are also consumed to some extent in the province. The sale of cocaine is restricted to qualified and duly licensed persons. The consumption of opium was 2,235 maunds, against 2,258 maunds in the previous year. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or after the Bengali manner, known as *madak*, and it is believed that the consumption of opium in those forms is decreasing.

The excise report for the United Provinces relates to the financial year 1904–05, a change having been made this year in the period covered. For the last two financial years the gross excise revenues have been :— United Provinces.

| Gross Receipts from | 1903–04. | 1904–05. |
|---|---|---|
| | £ | £ |
| Country spirits and fermented liquors | 408,418 | 443,780 |
| Foreign liquors and rum | 52,528 | 55,589 |
| Opium | 55,774 | 56,096 |
| Other drugs | 114,270 | 125,920 |
| Miscellaneous | 259 | 286 |
| Total £ | 631,249 | 681,671 |

This large expansion of the revenue was due, in the main, to enhanced taxation rather than to an increased use of intoxicants. The receipts from distillery liquor rose by 6·6 per cent., while the consumption of that liquor increased by 1·2 per cent. only; and the large increase in the revenue from drugs is reported to have been accompanied by an actual decrease in the amount sold for consumption. The duty on country liquor was raised in several of the chief towns, a revised scale of fees for licences for sale of

Excise. foreign spirits was generally introduced, and the area of the higher duty on *charas* was extended. Most of the country spirit revenue is raised under the distillery system; the out-still area is being gradually reduced, though no considerable change in this direction was effected during the year under report. The number of out-stills and shops rose from 1,458 to 1,481. The consumption of spirits under the farming and out-still systems cannot be stated, but the amount of country spirits consumed in the distillery tracts, which constitute most of the province, is given as 1,445,578 gallons at London proof, or 1½ per cent. more than the consumption of the previous year. The quantity of hemp drugs consumed included 288 maunds of ganja, 1,988 maunds of charas, and a large quantity of bhang, the figures in each case showing a decrease. The consumption of opium (1,619 maunds) was rather higher than in 1903–04.

Punjab. The gross excise revenues in the Punjab in the last three years were raised as follows:—

| Receipts from | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | £ | £ | £ |
| Spirits made in India - - - | 101,865 | 108,734 | 131,356 |
| Imported liquors and beer - - - | 14,575 | 14,840 | 15,349 |
| Opium - - - - - | 40,236 | 39,039 | 40,289 |
| Other drugs and miscellaneous - - - | 21,673 | 24,080 | 23,061 |
| Total - - - £ | 178,349 | 186,693 | 210,055 |

There was a remarkable increase in the receipts from country spirits, chiefly under the head of still-head duty. The increase in the consumption of these spirits was 36,000 gallons, or 17 per cent. on the figures of the previous year. There can be no doubt that the bulk of this increase is due to the substitution of licit for illicit spirits by energetic measures which are being taken; and further large apparent increases must be expected in future years from this cause. But some allowance must also be made for an increased consumption which naturally follows on the growing prosperity. The province stands fourth in respect of population, but in the excise revenue is almost lowest of the great provinces, owing partly to the abstemious character of much of the population, and partly to the consumption of illicit spirit. The licit spirit supply works out at an average of about one-eighth of a quart per head of the population in the year. There is practically no revenue from native fermented liquors, which are not consumed to any extent. The amount of opium retailed, or issued from the Government treasuries, is returned as 1,443 maunds. The amount consumed is approximately balanced by the amount produced in the province, where the unusually large area of 9,000 acres yielded crops of poppy in 1904–05. Owing, however, to the large demand for opium from the Native States, Malwa opium is imported, and this pays an import duty of Rs. 4 per seer, while that coming from Kashmir and the Hill States pays Rs. 2 per seer. There was a small decline in the consumption of bhang (2,194 maunds), and the retail sales of charas fell from 963 to 952 maunds, which may, it is hoped, be a prelude to a greater decline when the charas produced in 1904, which will have paid the higher duty of Rs. 6 per seer, comes into use.

North-West Frontier Province. The excise receipts in the North-West Frontier Province amounted to £12,900 only, and there is nothing which need be noticed in the working of the excise system. As in the case of the Punjab, the new duty of Rs. 6 per seer on charas had no effect during the year, as stocks had been laid in at the lower rate.

In Burma the gross excise revenue during the past three years was raised thus :— EXCISE. Burma.

| Receipts from | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | £ | £ | £ |
| Liquors imported or made in Burma by European methods at distilleries. | 75,320 | 97,551 | 99,128 |
| Country spirit (*i.e.* spirit made at out-stills) - - | 8,839 | 9,633 | 16,646 |
| Toddy and rice-beer, &c. - - - - | 109,244 | 115,127 | 138,503 |
| Opium - - - - - - | 204,330 | 303,345 | 344,620 |
| Fines, &c. - - - - - - | 2,871 | 3,342 | 4,070 |
| Total - - | 400,604 | 528,998 | 602,967 |
| *Add*,—Customs duty on imported liquors - - | 83,722 | 102,741 | 104,425 |
| Total - - £ | 484,326 | 631,739 | 707,392 |

The increase in both the last two years has been a notable one. In the 1904–05 figures are included the receipts from liquor vend fees for April 1905, making thirteen months in all. But there were also large increases under fermented liquors and opium. In certain places where there is an ascertained demand for country-made spirit, out-stills are permitted under strict and close supervision; there were 45 of these out-stills in Lower Burma and 13 in Upper Burma during 1904–05, the number having been increased, chiefly in the Thaton district, to meet the demand previously supplied by illicit distillation. The excise duty on distillery spirits is Rs. 6 per gallon, which is the same as the import duty on foreign spirits. Most of the revenue from toddy and other fermented liquors accrues in the Pegu and Irrawaddy divisions, and attempts made to introduce these more harmless beverages in other divisions have met with little success. With the commencement of the year, an opium system was introduced into Upper Burma similar to that already in force tentatively in the Lower province. Licence fees on a fixed scale according to the probable gross profits of the licensees, and careful regulation of the wholesale price of opium on issue from Government treasuries, are important features of the system. The amount of opium issued for the consumption of the whole province was 2,079 maunds. The system is still on its trial, and no final opinion on its success can yet be given. Cocaine was brought under the excise law during the year, as has been done in other provinces. A central Controlling Officer was appointed before the end of the year for the supervision of the excise staff, and proposals for the appointment of a Commissioner of Excise have since been sanctioned.

In the Central Provinces and Berar the excise receipts of recent years have been as follows :— Central Provinces and Berar.

| Receipts from | Central Provinces. | | | Berar. | | |
|---|---|---|---|---|---|---|
| | 1902–03. | 1903–04. | 1904–05. | 1902–03. | 1903–04. | 1904–05. |
| | £ | £ | £ | £ | £ | £ |
| Country spirits and toddy. | 96,944 | 111,990 | 143,834 | 81,928 | 101,862 | 130,159 |
| Opium - - - | 53,512 | 58,079 | 65,983 | 22,381 | 27,782 | 29,952 |
| Ganja - - - | 12,862 | 14,435 | 17,303 | 2,836 | 3,361 | 4,191 |
| Miscellaneous, including foreign liquors. | 2,990 | 3,605 | 3,835 | 577 | 599 | 545 |
| Total - - £ | 166,308 | 188,109 | 230,955 | 107,722 | 133,604 | 164,847 |

EXCISE. The gross revenue of the combined provinces shows an increase of £74,000, of which £23,000 is due to advance collections. Of the remainder, the greater part is due to larger receipts from the sale of licences, receipts from direct duties showing a smaller growth. This indicates that the value of the monopolies has risen not so much by virtue of extension of consumption as on account of the higher price of liquor which general prosperity made possible. The issues of spirits from the distilleries were equivalent to 564,400 gallons at London proof strength, an increase of 12 per cent. compared with the preceding year. The incidence of direct duty per gallon of country liquor averages Rs. 2 in the Central Provinces and Rs. $3\frac{1}{10}$ in Berar. The consumption in out-still areas cannot be stated. The number of out-stills was reduced by 119 to 2,391.

The Excise Committee, mentioned in last year's Statement, presented during the year a report which contains an exhaustive review of the history of excise administration in the two provinces, a careful discussion of the merits of existing systems, and extensive and detailed proposals for future improvements. Orders based on the report were issued during the year, and preliminary arrangements were made for the introduction of the Madras contract supply system into selected areas of the province in accordance with the Committee's recommendations.

There was an increase of about 9 per cent. in the amount of opium issued to licensed vendors in the Central Provinces during the year—682 maunds, against 631 maunds in 1903–04—but the revenue increased by 14 per cent., which shows that in this case also an increased revenue was received per unit of consumption. The same was the case in Berar, where the consumption showed an actual decline. The consumption of ganja increased again, to 1,160 maunds in the combined provinces, and it has been decided to raise the duty in April 1906 from Rs. 4 per seer, to which it was increased in 1901, to Rs. 5 per seer.

Assam. The excise revenue of Assam for the year 1904–05 and two previous years was raised as follows :—

| Receipts from | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 46,382 | 47,175 | 45,925 |
| Imported liquors and rum | 1,506 | 1,390 | 1,240 |
| Opium and its compounds | 119,435 | 124,353 | 126,748 |
| Ganja and its compounds | 27,197 | 28,543 | 29,515 |
| Miscellaneous, including toddy, &c. | 142 | 165 | 177 |
| Total £ | 194,662 | 201,626 | 203,605 |

The number of excise inspectors was raised from three to eight during the year, so as to provide one for each district in the plains. The special preventive establishment was at the same time abolished, the duties of the inspectors including preventive work, as well as the general supervision of excise administration. Arrangements were made to start a central distillery at Jorhat, as the result of inquiries into the impurities in the country spirits of the province. The limit of retail sale of country spirit was reduced from six bottles at one time to three bottles in any one day, the object being to discourage excessive drinking by tea garden coolies. It is reported that the active efforts of the newly-appointed inspectors have resulted in a very marked decrease of drunkenness at the country liquor shops frequented by the coolies. The country spirits are for the most part consumed by the immigrant population, which has grown rapidly during the past few years; no estimate of the consumption of spirits for the year is available, as the central distillery system had not been introduced, up to the end of the year, except as an experiment in the Sibsagar district, and the out-still

system prevailed everywhere else. The number of spirit shops remained at 213, and all complaints against the sites of shops received the most careful consideration. The continued increase in the receipts from opium and ganja, which are consumed by the indigenous population, is ascribed to the higher level of prosperity, caused by good crops and the gradual disappearance of the *kala-azar* disease. The amount of opium issued from the Government treasuries was 1,369 maunds, and the ganja sold amounted to 797 maunds, the latter especially showing a considerable increase. The opium consumption was 34 maunds above the figure for the preceding year, but it is still very markedly less than it was a generation ago. EXCISE.

The gross excise revenue of Madras during the last three years was raised thus :— Madras.

| Receipts from | 1902-03. | 1903-04. | 1904-05. |
|---|---|---|---|
| | £ | £ | £ |
| Country spirits | 403,282 | 478,515 | 512,616 |
| Toddy | 529,654 | 585,706 | 621,837 |
| Foreign liquors and miscellaneous | 30,620 | 33,330 | 34,058 |
| Opium and other drugs | 72,249 | 76,719 | 82,619 |
| Total | 1,035,805 | 1,174,270 | 1,251,130 |
| *Add*,—Customs duty on imported liquors | 69,696 | 76,631 | 77,232 |
| Total Revenue from Drink and Drugs - £ | 1,105,501 | 1,250,901 | 1,328,362 |

Distillery supply systems are in force over the greater part of Madras. The distilleries are all private concerns working on European methods. In some small tracts non-distillery systems are in force, but these areas are being restricted. Still-head duty is levied on all spirits issued from the distilleries; the rate varies, but generally speaking is Rs. 4⅜ per gallon at proof strength. The amount of country spirits consumed in 1904–05 in distillery areas is returned as 1,272,000 gallons at proof strength, compared with 1,207,000 gallons in the preceding year. Owing to this increase in consumption, and to the higher rentals paid for shops, the country spirit revenue rose considerably, the toddy revenue following the same course for similar reasons, and both stood far above the highest figures previously recorded. Over nearly the whole of the Presidency a tree tax, ranging from 1 rupee to 6 rupees a year, is imposed on all palm trees tapped for fermented toddy, while the shops for retail sale of toddy are separately sold by auction to the highest bidder. The amount of toddy consumed in the Presidency cannot be stated; the increase in the revenue came chiefly from shop rentals, and not from an increase in the number of trees tapped.

The use of opium is almost restricted to the districts in the north-east of the Presidency, chiefly the Godavari district, where the rate of consumption (117 grains per head) is high. The quantity consumed in the Presidency, including that used in the manufacture of drugs, is given as 955 maunds, compared with 978 maunds in 1903–04. The amount of hemp drugs of all kinds sold by retail is returned as 1,222 maunds.

The central distillery system obtains throughout practically the whole of the Bombay Presidency, but it differs from the system prevailing in Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, who guarantees a fixed minimum return of duty to the Government, and nearly all the revenue is obtained from still-head duties. In the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licences. An experiment was, however, being tried in the Khandesh district of selling separately the rights of manufacture and of retail sale, the licence fees for shops being disposed of by a system of tenders of minimum guarantee of duty. Contract distillery and separate shop systems were also being tried in the Belgaum, Poona, and Satara districts. The Bombay still-head duty ranges between Re. 1 and Rs. 5⅓ per proof gallon, averaging about Rs. 3½. Bombay.

EXCISE. The general fiscal results of the excise management in Bombay, Sind, and Aden during the last three years were—

| Gross Receipts from | 1902–03.* | 1903–04. | 1904–05. |
|---|---|---|---|
| | £ | £ | £ |
| Locally-made liquors, including toddy | 417,634 | 682,470 | 771,510 |
| Foreign and Indo-European liquors | 12,096 | 23,353 | 25,497 |
| Opium | 34,257 | 56,829 | 70,663 |
| Hemp drugs | 20,591 | 33,104 | 51,045 |
| Miscellaneous items | 7,015 | 5,409 | 5,601 |
| Total Excise Revenue | 491,593 | 801,165 | 924,316 |
| *Add*,—Customs duties on imported liquors | 203,939† | 215,148 | 213,265 |
| Total Revenue from Drink and Drugs - £ | 695,532 | 1,016,313 | 1,137,581 |

* Eight months only. † Twelve months.

The rate of consumption of country spirit per head of the population in Bombay proper was 9·4 drams, compared with 7·3 drams, the average of the last five years. The amount of country spirit issued from the distilleries was 2,383,900 gallons at London proof strength, which was 14 per cent. above the issues of the preceding year. The increase was spread over nearly the whole of the province, but is generally attributed to improvement in the condition of the labouring classes consequent on a good season, and to the celebration of more marriages. But in the cases of the Khandesh and Poona districts, which head the list of advances, the new excise arrangements mentioned above, which caused a reduction in the selling prices of country spirit, no doubt contributed to the result. There was also a considerable increase in the consumption of country liquor in Sind. Issues of opium from Government treasuries for internal consumption are returned at 930 maunds in Bombay and 226 maunds in Sind, each of which figures is lower than the corresponding figure for 1903–04, owing to the higher prices ruling for the drug. The amount of hemp drugs sold during the year included 3,352 maunds of bhang (chiefly in Sind), 977 maunds of ganja (chiefly in Bombay), and 411 maunds of other preparations. These figures show an appreciable increase in consumption, owing to the prosperous season and to the comparative cheapness of these drugs.

## STAMPS.

STAMPS. The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts, and under Act II. of 1899 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamp receipts, province by province, for the year 1904–05 :—

| —— | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Sale of court fee stamps | 14,623 | 1,016,294 | 433,183 | 181,518 | 15,939 | 126,418 | 70,251 | 33,929 | 48,181 | 371,024 | 238,647 | 2,549,012 |
| Sale of commercial and other stamps. | 7,957 | 358,168 | 127,802 | 80,737 | 8,839 | 90,914 | 32,448 | 25,090 | 17,909 | 210,749 | 178,139 | 1,138,752 |
| Fines and miscellaneous | 1,091 | 16,252 | 2,134 | 6,835 | 133 | 4,616 | 342 | 317 | 487 | 7,826 | 10,565 | 50,598 |
| Gross Stamp Revenue of 1904–05. | 23,676 | 1,390,714 | 563,119 | 269,090 | 24,911 | 220,948 | 103,041 | 59,336 | 66,577 | 589,599 | 427,351 | 3,738,362 |
| Deduct — Refunds and charges. | 4,463 | 36,382 | 15,061 | 11,454 | 1,257 | 7,412 | 2,036 | 2,120 | 1,796 | 22,802 | 17,472 | 162,351 |
| Net Revenue of 1904–05 | 19,213 | 1,354,332 | 548,058 | 257,636 | 23,654 | 213,536 | 101,005 | 57,216 | 64,781 | 566,797 | 409,879 | 3,576,011 |
| Gross Stamp Revenue of 1903–04. | 23,077 | 1,322,368 | 550,146 | 269,867 | 25,726 | 196,220 | 96,701 | 56,558 | 65,830 | 563,859 | 409,895 | 3,580,247 |

## CUSTOMS.



Import duties, which had been abolished in India in 1882, and were re-imposed in 1894, are levied, generally speaking, at the rate of 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material, industrial or agricultural machinery, food grains, raw materials such as coal, jute, raw cotton, or wool, besides books, and gold and unset precious stones, which are all admitted free of duty; petroleum, which pays 1 anna per gallon; and iron and steel, on which an import duty of 1 per cent. *ad valorem* is levied. At first cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns, while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India, the products of the village handloom industry being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of unhusked rice. An Act empowering the Government of India to put a countervailing duty on any imported goods which have received a bounty, direct or indirect, from the country of export, was passed in 1899; and this was put in force with regard to sugar. Subsequently, in accordance with the views of the Brussels Convention, and in view of the protection enjoyed by sugar-growers in certain countries in their home markets, Act VIII. of 1902 was passed, by which a special additional duty was imposed on sugar coming from countries where the duties on imported sugar exceeded those levied on locally produced sugar by 6 francs per 100 kilogrammes in the case of refined sugar, or 5½ francs for other sugar, the amount of the additional duty being one-half of such excess. In August 1903 a further amendment of the Tariff Act was passed, giving power to continue the countervailing duties until the 31st March 1904, but this was subsequently held to be inconsistent with the undertakings of the Government, in view of the fact that bounties were abolished with effect from 1st September 1903 by the States adhering to the Convention, and the duties were therefore discontinued, so far as concerned sugar of the new crop coming from those countries.

The appended table shows the changes in the net customs revenue caused by the above-mentioned changes, giving the figures for 1894–95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December 1894; 1895–96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; and the four most recent years, during the whole of which the tariff remained unchanged, with the exception of the sugar duties, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list:—

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

CUSTOMS.

| | 1894-95. | 1895-96. | 1901-02. | 1902-03. | 1903-04. | 1904-05. |
|---|---|---|---|---|---|---|
| Sea Customs, import duty : | £ | £ | £ | £ | £ | £ |
| Arms, ammunition, and military stores. | 10,126 | 11,403 | 12,563 | 10,699 | 8,252 | 10,925 |
| Liquors - - | 406,355 | 440,669 | 469,256 | 504,006 | 542,196 | 552,141 |
| Petroleum - - - | 213,118 | 270,782 | 348,222 | 356,438 | 291,303 | 303,465 |
| Cotton manufactures - | 256,631 | 776,483 | 683,214 | 634,189 | 653,193 | 803,324 |
| Silver bullion and coin | 230,557 | 231,859 | 204,054 | 258,976 | 267,069 | 267,691 |
| Other metals - - | 135,078 | 168,641 | 164,010 | 201,716 | 222,827 | 227,170 |
| Other articles - | 630,450 | 686,725 | 863,432 | 800,565 | 910,205 | 1,032,406 |
| Countervailing duties on sugar. | — | — | 244,398 | 73,360 | — 22,572 | 683 |
| Export duty on rice - | 594,017 | 609,581 | 595,680 | 823,280 | 780,863 | 858,958 |
| Miscellaneous - - | 6,694 | 1,770 | 22,307 | 19,626 | 21,674 | 22,698 |
| TOTAL Sea Customs | 2,483,026 | 3,197,913 | 3,597,136 | 3,682,855 | 3,675,010 | 4,079,461 |
| Land Customs - - | 15,884 | 13,397 | 14,185 | 18,301 | 21,307 | 24,630 |
| Excise duty on cotton manufactures. | 6,897 | 40,632 | 114,456 | 121,698 | 135,740 | 155,577 |
| Miscellaneous (including warehouse and wharf rents). | 10,773 | 18,672 | 20,386 | 18,974 | 18,767 | 19,044 |
| TOTAL NET CUSTOMS REVENUE. | 2,516,580 | 3,270,614 | 3,746,163 | 3,841,828 | 3,850,824 | 4,278,712 |

The receipts from customs duty show a large increase, following the course of the import trade. The receipts from the excise duty on cotton goods made in power mills continued to expand, and are a satisfactory indication of the prosperity of that industry.

PROVINCIAL RATES.

## PROVINCIAL RATES.

Provincial rates or cesses are levied on the land to meet charges for local roads, local schools, local sanitary work, and, before recent changes were made, for local postal arrangements, and in some provinces for village police. They are assessed either on the "assets," or rental value, or else, as is the case in the ryotwari provinces, on the land revenue, and they are collected with the land revenue. In Bengal there are two cesses, for roads and public works respectively, which are limited by law to half an anna in the rupee of the rental in each case, or one anna in the rupee (6¼ per cent.) for the combined cesses. They are levied on immovable property outside the municipalities on a valuation made and kept up from year to year for this purpose. In the ryotwari provinces of Bombay and Madras the incidence of the local rates (for roads and schools) was, before the recent remission of various cesses, precisely that in force in Bengal, with the difference that the percentage was on the revenue instead of on the rent, and that they formed, therefore, probably a smaller proportion of the profits of the land. In Lower Burma the local rates amount to 10 per cent., and in Assam to 8·3 per cent., on the ryotwari revenue. These are the highest rates. In the Punjab, the United Provinces, and the Central Provinces, the local rates are assessed on double the land revenue, that revenue being, except in the case of the Central Provinces, rather less than half the rental assets. In the Punjab they were in the year under report equivalent to 5·2 per cent. on the rental value. Elsewhere they did not exceed 4 per cent. In the Agra Province they were charged at 6 per cent.

At the end of the year 1904–05 some famine cesses in Northern India and the Central Provinces were abolished, and this was followed in 1906 by a further measure of remission, by which were remitted the cesses for the district post and practically all the cesses levied under the various names of patwari cess, village service cess, and the like, in Madras, the Central Province, the United Provinces, the Punjab, the North-West Frontier Province, Ajmere and Coorg, the total amount remitted being about £547,900 a year.

The following is a table of the rates and cesses collected during the year :— PROVINCIAL RATES.

| — | India (General). | Bengal. | United Provinces. | Punjab. | North-West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| District Local Fund : Cess on Land for expenditure on roads, schools, hospitals, and general purposes, and for railways in Madras. | 1,537 | 336,222 | 382,629 | 161,397 | 11,798 | 118,134 | 31,104 | 28,672 | 46,17 | 410,816 | 158,881 | 1,687,361 |
| Provincial : Cess on land for expenditure on roads, schools, &c. | — | 335,913 | -- | — | — | — | 252 | — | — | — | — | 336,165 |
| Cess on land for famine assurance, canals, and railways. | — | — | 87,756 | 42,371 | 3,088 | — | 12,597 | — | — | — | — | 145,812 |
| Cess on land for district post. | — | 24,150 | — | 8,051 | 534 | — | 3,207 | — | — | — | — | 35,942 |
| Cess on land for village service and patwaris. | 4,180 | — | 169,443 | 102,737 | 9,010 | — | 36,761 | 20,471 | — | 161,737 | 33,419 | 537,758 |
| Assessment on wards' estates for establishment charges. | — | 11,018 | — | 1,134 | 114 | — | -- | — | — | — | — | 12,266 |
| Miscellaneous - - - | 2,624 | — | 64,272 | — | 213 | — | — | — | — | 2,068 | — | 69,177 |
| Total Receipts - | 8,341 | 707,303 | 704,100 | 315,690 | 24,757 | 118,134 | 83,921 | 49,143 | 46,171 | 574,621 | 192,300 | 2,824,481 |
| Refunds and charges of collection. | 10 | 29,840 | 289 | 214 | 39 | 4,333 | 132 | 28 | 508 | 478 | 4,884 | 40,764 |
| Net Receipts, 1904-05 - | 8,331 | 677,463 | 703,802 | 315,476 | 24,718 | 113,801 | 83,789 | 49,115 | 45,663 | 574,143 | 187,416 | 2,783,717 |
| Net Receipts, 1903-04 - | 11,004 | 655,681 | 698,132 | 298,228 | 24,005 | 111,904 | 75,373 | 43,076 | 40,755 | 601,988 | 222,609 | 2,782,755 |

## INCOME TAX.

INCOME TAX. General.

The principal provisions of the Income Tax Act (II. of 1886) are that incomes derived from salaries and pensions, or from interest on securities (classed as Parts I. and III. in the returns), if amounting to Rs. 2,000 per annum, should pay 5 pies in the rupee (equal to $6\frac{1}{4}d.$ in the £), and if less than Rs. 2,000, 4 pies in the rupee ($5d.$ in the £); that companies (Part II.) should pay 5 pies in the rupee on their net profits; and that income derived from other sources (Part IV.) should pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being 5 pies in the rupee. All incomes of less than Rs. 1,000 (£66$\frac{2}{3}$) a year were exempted by an Act passed at the beginning of the year 1903–04, which substituted that minimum limit for the limit of Rs. 500 which previously existed. The tax is not levied on profits or incomes derived from agriculture, or on military salaries of less than Rs. 500 a month (£400 a year).

The receipts on account of income tax in each province were as follows :—

| — | Net Receipts, 1903-04. | 1904-05. | | |
|---|---|---|---|---|
| | | Gross Collections. | Refunds and Collection Charges. | Net Receipts. |
| | £ | £ | £ | £ |
| India (General) - - - - | 91,530 | 108,444 | 303 | 108,141 |
| Bengal - - - - - | 321,844 | 339,621 | 12,342 | 327,279 |
| United Provinces - - - | 136,902 | 139,353 | 803 | 138,550 |
| Punjab - - - - - | 85,280 | 84,241 | 1,362 | 82,879 |
| North-West Frontier Province - | 6,580 | 7,331 | 108 | 7,223 |
| Burma - - - - | 78,239 | 93,534 | 2,773 | 90,761 |
| Central Provinces - - - | 20,220 | 21,464 | 150 | 21,314 |
| Berar - - - - | 9,226 | 17,765 | 555 | 17,210 |
| Assam - - - - | 16,889 | 16,982 | 107 | 16,875 |
| Madras - - - - - | 168,746 | 180,867 | 3,506 | 177,361 |
| Bombay - - - - | 247,971 | 260,200 | 6,112 | 254,088 |
| Total - - - £ | 1,183,427 | 1,269,802 | 28,121 | 1,241,681 |

INCOME TAX.

The figures in the following paragraphs are taken from the provincial reports, and differ to some extent from those given above, which were taken from the final Accounts of the Government of India.

Bengal.

In Bengal the collections in 1904–05 amounted to £322,000, including the tax on Government salaries, compared with £315,300 in the previous year, and £375,100 in 1902–03; and the number of assessees was 56,100, compared with 131,100 in 1902–03. The elimination of assessees with incomes below Rs. 1,000 has relieved more than one-half of the former assessees, while losing only one-sixth of the demand. The revenue of the year was 2 per cent. above that of 1903–04, the first year in which the change was introduced. The realisations under Part IV. amounted to £202,600 from 39,400 assessees, compared with £241,600 from 100,570 assessees in 1902–03. Calcutta contributed £172,200 against £169,300 in 1903–04, and £182,700 in 1902–03; and of this amount about one-half, £87,500, accrued under Part IV., showing a growth of rather more than 2 per cent. as compared with 1903–04. The collections under Parts II. and IV. show an incidence per head of the population of approximately Re. $1\frac{3}{4}$ in Calcutta, which is about the same as in Bombay, but less than in Rangoon.

United Provinces.

In the United Provinces the total receipts for the year 1904–05 were £135,800, compared with £132,200 in 1903–04 and £189,400 in the previous year. It appears that there is a gradual tendency to increase in the receipts from this tax in the province, but no rapid growth is to be expected. The assessees were 1 per cent. more numerous than in 1903–04, collections under Part IV. amounted to £96,200, to which Cawnpore contributed £6,800.

Punjab.

The total receipts in the Punjab were £81,300, which is 4 per cent. more than the receipts of the preceding year, owing, it is stated, to the fact that the assessing officers had had more time to go more carefully into the assessment. Under Part IV. a total of £59,900 was realised from 19,000 assessees. The separation of the North-West Frontier Province has not caused any important reduction in the receipts of the last three years, owing to the paucity of wealthy income-tax payers in the districts concerned.

Burma.

The operation of the Income Tax Act was extended during 1904–05 to several additional towns and trading centres in Lower Burma, and with effect from the 1st April 1905 income tax will be assessed throughout Lower Burma. In Upper Burma the Act is only in operation in Mandalay. The total collections amounted to £91,100 from 15,500 assessees, against £79,100 from 14,900 assessees in 1903–04, and £81,000 from 31,400 assessees in the preceding year, before the exemption limit was raised. The total collections in Rangoon amounted to £53,100, including the tax on the salaries and profits of the Burma Railways Company; the collections under Part IV. in the town were £23,900, paid by 3,073 assessees, a satisfactory increase which illustrates its rapid progress in wealth and prosperity. Mandalay, on the other hand, has suffered from commercial depression during recent years. The incidence per head of the Rangoon population (of 1901 census) of the collections in the town under Parts II. and IV. was Rs. $2\frac{4}{5}$, which is higher than that prevailing in Calcutta or Bombay.

Central Provinces.

In the Central Provinces and Berar the yield in 1904–05 was £37,300, the receipts in the Central Provinces showing a good increase as compared with the preceding year. Of the Berar receipts (£16,900), nearly all was added revenue, as in that province the tax was levied only on Government salaries and interest on securities before 1st April 1904. The assessment was, therefore, a new measure, and was attended by a considerable number of successful objections. The receipts under Part IV. were £11,300 in the Central Provinces and £14,600 in Berar.

Assam.

In Assam the yield of the tax was £16,500, which was about the same as the figure for the previous year, though the number of assessees (3,600) was 10 per cent. lower. The profits of the tea companies, on which the prosperity of the province mainly depends, are taxed in Calcutta and in London, but 44 per cent. of the receipts from the tax are paid by salaried persons in the employ, for the most part, of companies, collections under Part IV. being comparatively small.

INCOME TAX.

Madras.

The collections in Madras rose to £171,100, in consequence of the expansion of trade and to the more careful assessment of persons liable to pay the tax. The incidence of taxation throughout the Presidency was about one anna per head of population. The detailed returns for 1904–05 are not available, and particulars cannot, therefore, be given of the tax paid in Madras city.

Bombay.

In the city of Bombay, where over 60 per cent. of the income tax of the Presidency was paid, the receipts of 1904–05 were £149,600, from 19,300 assessees, about half of this sum being collected under Part IV. The receipts from profits of companies are also important in Bombay city, amounting to £25,200. For the whole Presidency the collections amounted to £246,600, compared with £241,800 in the preceding year, the number of persons paying the tax having fallen from 49,245 to 45,143. Of this amount, £144,500 accrued under Part IV. The results of the income tax collection are considered by the Government of Bombay to indicate a substantial and continued improvement during the last three years. But it is noted that in Bombay city the increase in receipts has not kept pace with the improvement in trade, and instructions have been issued with the view of securing better management, and greater attention to the proper assessment of the higher classes of taxpayers.

## CHAPTER IX.

## FORESTS.

FORESTS.

The subjoined table gives the forest receipts, expenditure, and net revenue for each province during the year 1904–05, as given in the Finance and Revenue Accounts :—

| | India, (General). | Bengal. | United Provinces. | Punjab. | North West Frontier Province. | Burma. | Central Provinces. | Berar. | Assam. | Madras. | Bombay. | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Receipts - - - | 57,404 | 77,832 | 159,821 | 124,963 | 6,066 | 597,317 | 90,188 | 44,043 | 54,378 | 188,614 | 201,371 | 1,601,997 |
| EXPENDITURE. | | | | | | | | | | | | |
| General direction - - | 5,431 | — | — | — | — | — | — | — | — | — | — | 5,431 |
| Conservancy and Works - | 25,838 | 23,593 | 63,073 | 44,767 | 3,171 | 146,861 | 31,346 | 7,175 | 19,619 | 73,179 | 60,888 | 499,510 |
| Establishment - - - | 11,349 | 22,313 | 29,699 | 22,724 | 1,826 | 82,934 | 39,734 | 9,786 | 13,958 | 59,228 | 66,032 | 359,583 |
| Charges in England - - | 4,614 | — | — | — | — | — | — | — | — | — | — | 4,614 |
| TOTAL Expenditure - | 47,232 | 45,906 | 92,772 | 67,491 | 4,997 | 229,795 | 71,080 | 16,961 | 33,577 | 132,407 | 126,920 | 869,138 |
| Net Revenue or Forest Surplus, 1904–05 - | 10,172 | 31,926 | 67,049 | 57,472 | 1,069 | 367,522 | 19,108 | 27,082 | 20,801 | 56,207 | 74,451 | 732,859 |
| Net Revenue or Forest Surplus, 1903–04 - | 5,533 | 24,135 | 79,934 | 37,425 | 2,748 | 327,743 | 23,410 | 24,393 | 16,684 | 60,454 | 65,540 | 667,499 |

Systematic conservancy of the Indian forests is based on the Forest Law of 1878, which gave to the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. The principle upon which the forest administration is based is that State forests should be administered for the public benefit, and they are worked, therefore, with a view of combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and retainers of moisture in the soil. The forests are classified, according to the degree of completeness of the management undertaken, as "reserved," "protected," or "unclassed" forests. In the case of reserved areas the control of the Forest Department is more complete than in the case of the protected or unclassed forests. In the latter category, the area of which cannot be stated with any great exactness, there are included large tracts of uncultivated land, especially in Burma, much of which will in all probability pass into cultivation as agricultural land. Among the most important measures of conservancy are the exclusion, so far as possible, of the yearly fires which used to devastate the forests, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of nearly 92,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves there are about 165,000 square miles of State forests, including 10,300 square miles of protected forests, 9,100 square miles of "district protected forests" in the United Provinces, and a small area of leased forests. Some part of this area will eventually be brought within the "reserve" area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests with which this chapter deals are, almost exclusively, those which belong to the

State. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use free of charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. Some of the better-managed Native States, such as Kashmir, Mysore, Travancore and Baroda, have followed the example of the British Government, and organised a systematic forest administration, and enjoy a considerable forest revenue. Forests.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected Financial Accounts for the year ending in March 1905.

In Bengal, at the end of the year, the areas of reserved and protected forests were 6,049 and 3,428 square miles, besides 3,753 square miles of unclassed forest in the Chittagong Hill tracts, much of which is in process of being converted into reserved forest. Survey operations were carried on and brought to a close by a detachment of the Survey of India in the Angul forest reserves, and 232 square miles were surveyed on the 4-inch scale. Working plans for the Singhbhum and Kurseong reserved forests, embracing a total area of 832 square miles, were sanctioned during the year, and progress was made in the preparation of other plans for an area of 576 square miles. There was still a reserved area of 1,989 square miles, chiefly in Chittagong, for which plans had to be taken in hand. Attempt was made to exclude fire from 2,239 square miles, and the effort was almost completely successful, only 10 square miles being burnt. Forty-six per cent. of the total area was thrown open to cattle for grazing, including all the unclassed forests, 1,676 square miles of protected forests, and 686 square miles of reserves. The year was favourable for natural reproduction; the rubber plantation (*ficus elastica*) in the Tista division promised well; and a teak plantation was started in Southern Puri. The yield of timber was 5,613,000 cubic feet, which was 31 per cent. more than in 1903–04, owing chiefly to a partial recovery in sales from the Sundarbans; the out-turn of fuel (33 million cubic feet) was rather larger than in the previous year; the number of bamboos taken from the forests was $25\frac{1}{8}$ millions. Bengal.

The area of reserved forests in the United Provinces was about the same as in the previous year, namely, 3,899 square miles, in addition to 153 square miles of leased forests; there was also an area of 30 square miles of protected forests under the Forest Department at the end of the year, besides 9,105 square miles of "district protected forests," which are under the Forest Act, but are controlled by district officers, and 73 square miles of unclassed forest. There is no settlement of rights remaining to be done in the Central and the School forest circles, but in the Oudh circle there is a considerable amount of work still left. Satisfactory progress was made in the preparation of working plans for the reserved forests, and the area of forests not under a working plan was only 379 square miles, for most of which no regular plan is required. Survey operations are equally advanced, being practically complete, except in the School circle. Protection from fire was attempted over 3,220 square miles, and was almost completely successful. The area thrown open to cattle, for the whole or part of the year, was 2,015 square miles, and the number of cattle grazed was over 615,000. The yield of the forests was $5\frac{2}{3}$ million cubic feet of timber, $11\frac{1}{8}$ million cubic feet of fuel, and $4\frac{1}{2}$ million bamboos, besides minor produce. The removal of forest produce is almost entirely carried on by outside agency. The only important departmental operations are the supply of fuel to Naini Tal, the export United Provinces.

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of railway sleepers, and the manufacture of turpentine and colophony. The latter industry is proving a success, the produce being of excellent quality and prices being good.

Punjab.

The reserved forest area administered by the Punjab Forest Department at the end of 1904–05 comprised 1,821 square miles, besides 116 square miles under military or other control. The protected forests aggregated 4,909 square miles, while an area of 1,845 square miles appears on the books of the Forest Department as unclassed forest and 537 as leased forests. As in other recent years, a considerable area under each class was "disforested" for transfer to the canal colonies, a loss which will be to some extent made good by the substitution of irrigated plantations under the Forest Department. Working plans were complete for 2,569 square miles of protected forests, 535 square miles of reserves and 297 square miles of leased forest, and were under compilation for a further area of 435 square miles. For most of the remaining area it is reported that plans are not required. The year was favourable as regards forest fires; special fire protection was attempted over an area of 865 square miles, of which 1·4 per cent. was burnt. The extreme cold of February and March did much damage to the forests. The total yield of the forests for the year was returned at 3,843,000 cubic feet of deodar and pine timber and 28½ million cubic feet of firewood, besides half a million bamboos; of this amount, 25 million cubic feet of timber and fuel were removed by free-grantees and right-holders without charge or at special rates. The area available for grazing under the charge of the Department was 9,100 square miles, and 90 per cent. of this was thrown open to cattle.

North-West Frontier Province.

The total area of the reserves under the direct control of the Department in the Frontier Province was 234 square miles, and there were also 120 square miles of civil protected forests. It is not necessary to enter into the details of the working of this area; there has been a steady and substantial increase in the out-turn of timber. A noteworthy development is the action taken to regulate the use of the village forests, for which rules came into force on the 1st January 1904. The rules are to be administered by the Deputy Commissioner, and are intended to stop the exhaustion by which these forests were threatened.

Burma.

The reserved forest area in Burma was increased by 373 square miles during the year ending in June 1905, bringing it up to 20,411 square miles; the unclassed forests, much of which will ultimately be cultivated, are given as covering rather more than 103,200 square miles. Much important settlement work was done during the year, 621 square miles being notified, besides 840 square miles settled and 270 square miles under settlement at the close of the year. Two Survey of India parties completed 1,174 square miles of forest survey in various parts of the province, but large areas of reserves remain to be surveyed, and a quicker and cheaper survey on a smaller scale than that (4 inches to the miles) hitherto adopted is being inaugurated. Working plans had been completed for 3,388 square miles by the end of the year, and plans for a further 2,739 square miles were being compiled. There is thus a huge area, to which additions are constantly being made, unprovided with working plans, and a quicker method of preparing the plans is being adopted in some areas. But in this respect, as in others, the work of the Department was hampered by the paucity of the controlling staff. Orders have since been passed for a substantial increase in their numbers. In the meantime, annual or preliminary plans of operations are formed for all reserved forests. As was the case in the preceding year, the season was favourable for fire protection; the area which it was attempted to protect was increased to 8,268 square miles, of which about 7·6 per cent. was burnt. Fair progress was made with the extension of teak and cutch *taungya* plantations in Lower Burma, which amounted to 69,700 acres. The Mergui rubber plantation was extended by 819 acres; but owing to the ravages of wild animals, and the appearance of disease in some places, the success of the experiment does not appear to be assured; the area planted up to the end of the year was about 2,000 acres. The quantity of teak extracted from the forests was 11 million cubic feet, equal to 218,500 cubic tons; of other

timbers, nearly 22 million cubic feet were extracted, besides 22 millions as fuel. The total of teak exports from Burma was 135,400 tons, compared with 156,000 tons in 1903–04. Of this amount, 64 per cent. was shipped to British India ports and 25 per cent. to the United Kingdom. The export of teak has tended to decline in recent years in spite of high prices, and Java teak, though admittedly inferior, has been finding its way more and more into consumption in India. This matter, which is of so great importance to Burma, had been referred for the consideration of a conference of the chief forest officers of the province. The forest surplus of the year was much higher than the surplus of the preceding year, owing partly to the larger amount of timber (other than teak) which was extracted, and partly to the closure of the temporary Rangoon depôt, in consequence of which the timber was sold on the spot instead of being taken to the depôt and sold in the ensuing year. FORESTS.

The grand total of the area of the forests in the Central Provinces and Berar was 22,745 square miles, of 70 more than in the previous year. Survey work in the northern and southern circles was practically finished; but much still remained to be done in Berar, and the services of the Forest Survey of India were being employed there. No new working plans were sanctioned during the year, and though plans were in hand for forests in the Mandla and Balaghat divisions, most of the work under this heading was still in abeyance pending re-classification of forests. Fire was excluded from rather more than 97 per cent. of the 7,921 square miles in which special fire protection was attempted, but was not quite so successful in respect of the area of 2,795 square miles over which partial protection was attempted. Seedling growth suffered in Berar from drought, and in the northern circle from frost. Regular cultural operations were practically confined to Berar, but some experimental cultivation was successfully tried elsewhere with sandal trees, lac, &c. Eighty-two per cent. of the area of the forests was open to cattle for grazing during the whole or part of the year, and the number of cattle grazed was nearly 3½ millions. The amount of timber removed from the forests during the year, chiefly by private persons, was 4½ million cubic feet, that of fuel nearly 24 cubic feet, and several millions of bamboos were extracted, with other minor produce. The results of the year's working are considered to be most satisfactory, and the steady expansion of the forest revenue is held to be an index of the improved conditions of the provinces. Central Provinces and Berar.

The State forests in Assam are divided into reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State other than reserved forests. The area of reserved forests stood at 3,797 square miles, or rather more than in the previous year. The area of unclassed forests is given as 19,000 square miles; but of this large area perhaps one half consists of grass or treeless tracts, and some of it is more or less regularly under cultivation. A small area is provided with regular working plans, and such a plan was prepared for 64 square miles in Sibsagar during the year, but most of the forests are worked under yearly plans. Special fire protective measures extended over 999 square miles, and were successful in respect of nearly the whole of that area; protection was attempted on a less ambitious scale over 196 square miles in Goalpara, but owing to one huge fire about 60 per cent. of that area was burnt. The grazing question presents no difficulties in Assam; over 28 per cent. of the reserves was opened to cattle, and the large area of unclassed forest was open to all animals throughout the year, on payment by professional graziers and free to ryots. The seeding of sâl was checked by frost in some areas. The rubber plantations at Charduar (*ficus elastica*) were being gradually extended, and covered 2,754 acres at the end of the year; steps were being taken to start experimental plantation of *hevea* in Cachar. The gross yield of the forests is given as 4½ million cubic feet of timber and 7⅓ million cubic feet of fuel. Assam.

The total area of reserves in Madras was 19,626 square miles, of which 18,107 square miles were classed as forests. Of the reserved forests, 184 square miles were finally included during the year under report; a further area of 1,110 square miles of reserved lands was awaiting settlement Madras.

FORESTS. and inclusion with the forests. Survey operations were being carried on by a party of the Survey of India, and also by local agency. As regards the management of the forests, detailed working plans were sanctioned for 1,046 square miles during the year, and plans for 3,481 square miles were under preparation; but more than half the area of the forests is still worked under annual plans. Protection from fire was undertaken over 6,500 square miles, and was successful in more than 97 per cent. of that area. Natural reproduction was satisfactory in most areas. The regular plantations, consisting chiefly of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast, cover nearly 26,000 acres, and there was a large area under other cultural operations. The area of reserves open to cattle for grazing throughout the year was 17,672 square miles, and $1\frac{3}{4}$ million cattle are reported to have grazed in them. The yield of the forests according to the returns was about $3\frac{1}{8}$ million cubic feet of timber and nearly 21 million cubic feet of fuel, besides 36 millions of bamboos, and other minor produce; this outturn of timber and fuel was considerably greater than that of the previous year. The timber included 419,000 cubic feet of teak, and many other valuable woods.

Bombay. The area of the reserved forests in the Bombay Presidency remained at 13,486 square miles at the end of 1904–05, but that of the protected forests decreased by 290 square miles, to 1,030 square miles, owing to the transfer of large areas to the control of the Revenue Department. There were also various reserves under the management of the Department, covering an area of about 12,000 square miles, and a large area of fodder reserves and pasture lands under the Revenue Department. Considerable progress was made with the demarcation of boundaries and ride-cutting. Owing to scanty rainfall and poor inundation, Sind fared rather worse in the matter of forest fires than in the previous year, as also did the Southern circle; but the Central circle reports a gratifying decrease, to 6·8 per cent. of the whole, in the area traversed by fire. Abnormal conditions adversely affected reproduction from seed and shoots, but did not retard new growths from stools in felled areas. The financial results of the year were satisfactory; particulars as to the yield of the forests in the year ending in July 1905 are not available for inclusion.

Coorg. The area of reserved forests in Coorg was 410 square miles, that of the reserved lands 121 square miles, and of protected forests 570 square miles. No new working plans were approved during the year; such plans existed for 178 square miles; a large part of the reserves were constituted in the preceding year, and for these preliminary plans were to be undertaken. The steps taken by the Forest Department to deal with the "spike" disease in sandal trees had not yet been successful so far as the extermination of the disease is concerned, but the number of trees found to have been attacked was less than in the preceding year. The season was a very unfavourable one as regards fires, owing to the continuous drought, but protection was undertaken over about 209 square miles, and was successful over 99 per cent. of that area. There was again a decrease in the quantity of timber removed from the forests, which amounted, including all the forests, to 179,500 cubic feet, in addition to 12,300 cubic feet of sandal wood.

# CHAPTER X.

## AGRICULTURAL AND MINERAL RESOURCES.

### AGRICULTURE.

AGRICULTURE.

Much has been done in recent years to further the interests of agriculture by the search for and promulgation of scientific methods of protecting and increasing the crops. It was in the year 1901 that the Imperial Agricultural Department received an expert head, by the appointment of an Inspector-General of Agriculture, who should co-ordinate the useful work which was being done on independent lines in various provinces. At that time the Imperial staff consisted of an Agricultural Chemist and a Cryptogamic Botanist. By the end of the year 1905, eleven experts in various branches of agriculture and its allied sciences had been provided for, and, in addition, the provinces of Bengal, the Punjab, the Central Provinces had appointed trained Deputy-Directors of Agriculture, who previously existed only in Madras, Bombay, and the United Provinces; and several provinces have also engaged the services of agricultural experts in various capacities, so that the staff, which stood at six appointments in 1901, had increased in four years to twenty-five. The Government of India have, therefore, not failed to carry out already to some extent the views of the Famine Commission of 1901, who remarked that "the steady application to agricultural problems of expert research is the crying necessity of the time."

Another means which has been adopted of applying such research is the erection of an Agricultural Research Station, with an experimental farm and an agricultural college, on the Government estate of Pusa in the Darbhanga district of Lower Bengal. The scheme was fully described in a Resolution published by the Government of India on the 29th February 1904. The main functions of the farm are, to serve as a model for Provincial Governments, to initiate lines of experiment, to test varieties of crops and seeds, to test the results obtained in provincial farms, and to provide a field for practical training at the College and for research work at the Research Station. The College is to have a complete curriculum, theoretical and practical, the full course of instruction taking five years.

A Board of Agriculture, consisting of the agricultural officers, with the heads of the Veterinary, Botanical, and Bengal Education Departments, is to meet annually at Pusa. Its first meeting, held in January 1905, resulted in a valuable discussion of various important projects. With a view to more thoroughly co-ordinating the work carried on by the various scientific departments, and of directing it to the greatest possible extent towards practical research, a Board of Scientific Advice has been established, consisting of the heads of those departments and such other scientific authorities as the Government may invite to serve on it; and the Government of India has the advantage of the advice of a special Committee of the Royal Society with reference to the recommendations made by the Board.

In the Budget for 1905–06 it was announced that the Government of India had decided to set apart a sum of 20 lakhs (£133,333) per annum for the development of agricultural experiment, research, demonstration, and instruction. The grant was allotted as part of a great scheme, which should aim at the establishment of an agricultural college in each of the larger provinces, provided with an expert staff and a system of experimental and demonstration farms available for each part of the country. But the details of the scheme had not been settled during the year under report.

"The Agricultural Journal of India" appeared for the first time in January 1906, and will be published quarterly. The Imperial Department of Agriculture also issued a first annual report for the year 1904–05, containing a history of the development of the Department up to date, and of its work during the year with regard to various crops; also the reports of the Pusa Research Institute, the Agricultural Chemist, the Cryptogamic Botanist,

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and the Entomologist to the Government of India, with appendices relating to indigo investigations, jute experiments, and the Agriculture Department in Mysore.

The following provincial details on the subjects of seasons and crops, agricultural inquiry and experiment, and the working of the Land Records organisation, are taken from the reports of the provincial Departments of Land Records and Agriculture :—

**Bengal.**

The season 1904–05 in Bengal was, on the whole, a bad one for agriculture. The May rainfall was exceptionally high in North Bengal, and after the middle of June there was more than average rainfall generally until October. But the fall in that month and for December was light in most parts of the province. Unusual cold in February, with ground frosts, did much damage to standing crops. The area under autumn crops was $15\frac{2}{3}$ millions of acres, or about a million more than in the preceding year; the winter rice crop covered $30\frac{1}{4}$ millions of acres, against $27\frac{1}{3}$ in 1903-04; and $14\frac{1}{2}$ millions were returned as having been sown with summer crops, or about two-fifths of a million less than in the previous year. The total area of all crops was 61 millions of acres, compared with a normal area of $63\frac{1}{5}$ millions and with $57\frac{1}{2}$ millions in 1903–04. The final estimate of the out-turn of autumn crops was 75 per cent. of the normal; the winter rice crop was estimated to be 86 per cent., and the spring crops 75 per cent. of an average crop. Besides the winter rice crop, which is by far the most important crop of the province, the following crop out-turns may be quoted: Autumn rice, 79 per cent. of the normal; jute, 76 per cent.; maize, 53 per cent.; sugar cane, 88 per cent.; indigo, 56 per cent.

Besides the three Government demonstration farms at Sibpur, Chittagong, and Cuttack already in operation, arrangements were made during the year for establishing two more at Rangpur and at Rampur Boalia respectively. At the two experimental farms of Burdwan and Dumraon, owned by the Maharajas of those estates, but worked under Government control, experiments were continued with jute, sugar-cane, rice, wheat, &c., and with various systems of manuring. There are two other privately-owned experimental farms at Gouripur in Mymensingh and at Sripur respectively, where useful work was done during the year; and various agricultural experiments were also in progress in Government, wards', and private estates. The Bengal Provincial Agricultural Association was inaugurated in August 1894, having for its object to secure for Government the co-operation of men interested in agriculture and in industry.

The Silk Committee, formed in 1898–99 for the promotion of Pasteur's method of silkworm rearing, continued its operations in the silk-rearing districts. These operations, which consist in instructing the rearers how to select seed and to rear silkworms, have been attended with a considerable measure of success, and the new policy of establishing nurseries with mulberry plantations has been extended. Sericultural instruction is given in various schools; and itinerant overseers are also employed for the purpose of examining seed before purchase by rearers.

**United Provinces.**

The rains set in earlier than usual in the United Provinces, and the autumn season outside Bundelkhand was distinctly favourable; but in that tract a very wet July and a very dry September damaged the crops. The spring crop season was marked by an exceptional amount of cold, damp, and cloud. Frosts of unprecedented severity occurred on several of the earlier nights in February. The crop area of the autumn harvest was half a million acres above the preceding year's figures, and amounted to about $22\frac{1}{2}$ million acres, while the area under spring crops, 21 million acres, was half a million less than in 1903–04. Among the spring crops, which were injured by the frost, wheat, occupying an area of about $7\frac{3}{4}$ million acres, is reported to have given an out-turn over the whole provinces of 70 per cent. of the normal. Barley ($4\frac{1}{2}$ million acres) yielded 60 per cent. only; peas and gram ($7\frac{1}{4}$ millions), 60 per cent.; but the autumn crops, rice, maize, millets, cotton, &c., gave out-turns which vary between 80 and 85 per cent. of the normal.

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The frost which has been referred to was one of remarkable severity. On the 2nd February the screened thermometer at Allahabad registered a minimum temperature of 18°, or 14° of frost, and no doubt the temperature was still lower in the open fields. The preceding and following days showed readings almost as low. The effects were fairly uniform over wide areas, and the damage done, especially to crops, which were already in flower, appeared at first to be enormous. But subsequently the weather was favourable to the crops; good rain in February and March stimulated new growth, and the abnormal duration of cool weather allowed the grain to mature, and the fears were seen to have been exaggerated. Still, a very great deal of damage was done to the crop yield, as shown above, and to forest produce, and considerable remissions and suspensions of revenue were necessitated. The people met their misfortunes well, and suffered less than might have been expected from so great a calamity.

Under the Agricultural Department, measures are being arranged for the development of depôts for the supply of seeds on a co-operative basis. The question of the improvement of breeds of cattle did not make any noteworthy advance. Efforts have been made for several years in the provinces towards the improvement of the local cotton by selection and better cultivation, but the experience has not been encouraging, and the amount of the improvement is stated to be very small. On the other hand, the Director advises that there is no room for the growth of really longstapled cottons on any considerable scale in the provinces, but the Cawnpore acclimatised varieties of medium staple seem hardy and suitable, if they can be protected from insect pests.

At the Cawnpore experimental farm the season of the year ending in June 1905 was, on the whole, unfavourable. The operations were concerned, as usual, with manurial experiments and experiments with varieties of sugar cane, cotton, maize, and jowar, deep and shallow tillage, and some other matters. The Meerut Demonstration Farm, which was formerly under the District Board, was being tentatively worked during the year, but is to be abandoned if it does not pay its way.

The Land Records Staff was improved by an increase in the supervising staff, the revision of circles, the better education of patwaris (91 per cent. of whom hold certificates from a patwari school), location of a larger number of them within their circles, and greater punctuality in filing their papers. The chief blot on the administration is stated to be the unsatisfactory state of the records in some of the eastern districts.

Punjab.

In the Punjab the monsoon of 1904 was uneven, and unfavourable for the province as a whole, as it practically failed completely over the central, west, and south-west Punjab, though it is classed as good in the south-eastern districts. The spring rains were very favourable for cotton and sugar cane, and though frosts of exceptional severity occurred at the beginning of February, most of the crops were not far enough advanced to suffer much. The autumn-sown area was $11\frac{1}{2}$ millions of acres only, but the following spring crop covered nearly $15\frac{1}{3}$ millions; the areas actually harvested were 9 and $13\frac{1}{2}$ million acres respectively, the area on which crops failed being larger than in the specially good year 1903–04. Wheat matured, in spite of the frost, on more than $7\frac{2}{3}$ million acres, of which about $3\frac{3}{4}$ millions were unirrigated. The yield of the cereal and pulse crops as a whole, taking into account both area and out-turn, is stated to have borne the proportion of 103 per cent. to the normal, while wheat yielded more than 116 per cent. The latter is the most important of the crops of the province, and its yield is estimated at about $2\frac{7}{8}$ million tons. Sugar was grown on one-third of a million acres, and yielded a crop equal to 97 per cent. of the normal. Cotton was grown on $1\frac{1}{3}$ million acres, and was an exceptional crop. The average of the years 1900–01 and 1901–02 has been taken as the standard for comparison.

The total area of crops matured on irrigated land in the year 1904–05 was about $9\frac{1}{2}$ millions of acres, of which $3\frac{1}{2}$ millions were irrigated from wells. Colonisation on the Chenab Canal, the extension of the Western Jumna, Bari Doab, and Sirhind Canals, and construction of new canals

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elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years :—

| | Acres. | | Acres. | | Acres. |
|---|---|---|---|---|---|
| 1899–1900 - - | 4,243,524 | 1902–03 - - | 4,887,677 | 1904–05 - - | 5,374,888 |
| 1901–02 - - | 4,530,766 | 1903–04 - - | 5,508,896 | | |

On the Chenab Canal the area allotted to cultivators in the year ending in September 1904 amounted to 35,600 acres, bringing the gross allotted area to a total of 1,809,000 acres, which is practically the maximum that the canal can at present irrigate. The area of crops sown was 1,807,800 acres, a remarkably good result brought about by very favourable conditions.

Much good work was also done in respect of colonisation operations in the Jhelum Colony, in spite of the temporary check caused by a severe outbreak of plague and the consequent failure of the spring harvest. The area allotted by the end of the year was 147,900 acres, of which 128,500 acres were sown with crops. In the Chunian Colony on the Bari Doab Canal 11,500 acres were allotted, bringing the total up to 46,200 acres, of which 34,300 acres were under crop during the year.

The appointment of a Deputy Director for the Punjab Agricultural Department was sanctioned, as well as the creation of a post of Economic Botanist for the United Provinces and the Punjab together. A seed farm was sanctioned, to be established at Sargodha, for the supply of good seed of wheat and cotton. The report of the Director contains a summary account of what had been done up to the end of the year with respect to the improvement of the cotton crop. Experimental growth of American cotton was being continued, and measures were being taken for the provision of a supply of selected seed of native varieties. At the Lyallpur farm 25 varieties of wheat were sown, but owing to heavy rain and high winds the results were disappointing. Experiments were also being conducted with a view to establishing the most economic method of irrigating wheat. Various other experiments were also in hand.

Thirty-five per cent. of the patwaris and their assistants on the Land Record Staff of the Punjab had passed a qualifying examination, compared with 25 per cent. only in the year 1900. The efficiency of the staff continues to increase with better educational qualifications and training and closer supervision.

North-West Frontier Province.

In the North-West Frontier Province the monsoon was rather late in the year 1904–05, and interfered with the sowing of the autumn crops; but good rain at the end of the year promoted spring crop sowings, and the severe cold of February, though it seriously affected such crops as sugar cane, did not cause much harm to most of the crops. The area harvested, both in the autumn and the spring harvests, was less than the exceptionally large area of 1903–04, but the spring crop area was above the normal. The area of crops harvested in the year was just over 2⅔ million acres, of which 829,100 acres were under wheat, and 363,900 acres under maize, the aggregate area of cereals and pulses being 1,868,100 acres. The wheat crop, the most important crop in the province, was less than in 1903–04, but much better than the average, both in respect of area and out-turn.

Central Provinces and Berar.

In the Central Provinces, including Berar, the rainfall of 1904–05 was deficient, owing to the weakness of the western monsoon, but the general character of the season was favourable to the cotton cultivation of the southern districts, while the rice of Chhattisgarh, which includes 71 per cent. of the rice area of the province, gave little short of an average yield. The value of the rice crop as a whole, however, was necessarily reduced by the deficient rainfall. The expansion of the cotton area, which is a notable feature of the agricultural history of the province in recent years, continued, and the increase in 1904–05 was nearly half a million acres. With a satisfactory yield on this record area, the year was one of marked advance for cotton growers. The area under wheat was 3¼ million acres; the spring wheat crop was injured by the frost, which caused serious loss in some of the northern districts, but the crop yielded exceedingly well in other parts of the country.

The Agricultural Department in the Central Provinces has been largely developed during recent years. The staff has been strengthened, and the organisation of the Victoria Memorial Institute, with an agricultural chemist, may be expected to give a stimulus to agricultural education. Two experimental farms were purchased during the year at Hoshangabad and Raipur, in addition to the already existing farms at Nagpur and Telinkheri; several demonstration farms have been established, district agricultural associations and a Hindi Agricultural Gazette have come into existence, while attention has been given to the improvement of agricultural education. Of the experimental farms, Nagpur was the only farm on which much experimental work was conducted in the year 1904–05. The associations are intended to form a link between the Department and the agricultural community, and they have already, though still in their infancy, shown that they may be of value; it is hoped that in a few years, when thoroughly established, they will show still better results. Efforts were continued during the year to stimulate and revive the tussar silk industry. AGRICULTURE.

There were a few small changes in the Land Records staff in these provinces, and measures were taken to improve their prospects. In Berar the system of Land Record supervision, introduced into Akola and Buldana in 1901, has been extended to the other four districts. The ordinary work of the Department was carried out satisfactorily, with rather less than the usual number of fines and other punishments.

In Burma the early and middle rains in the year 1904–05 were good all over the province, with a tendency to excess, with the result that rice was generally substituted for other crops in Upper Burma districts. Uneven distribution of the later rains affected the filling out of the ears, and there was a general complaint of shortness in weight. The area of crops rose from $12\frac{1}{3}$ million acres to nearly 13 millions, of which $9\frac{1}{4}$ million acres were sown with rice. The final forecast for the 15 chief rice-producing districts of Burma estimated a good out-turn, and for the whole province the proportion was estimated at 93 per cent. of the normal. The cultivation of cotton, though not extensive at present compared with that of other cotton-producing provinces, is making fairly satisfactory headway, and the area rose by 17 per cent., to 188,400 acres. Burma.

Beyond experimental gardens there are no establishments in the province for the conduct of agricultural experiments; but seeds of various products which appear to merit investigation are distributed for cultivation in suitable parts of the province.

The Land Records Department keeps up to date the information gained at settlement, and conducts a supplementary survey annually, for the purpose of fixing the revenue demand, over an area which amounted to 42,800 square miles in 1904–05. It also keeps up the topographical maps on a scale of 1 inch or 2 inches to the mile. The scheme for employing village headmen has been under trial, with varying results, in several districts. On the whole it appears to be working with some success, and is being extended. There are 18 survey schools, at which an average number of 414 scholars attended during the year.

The rainfall of the year 1904–05 was above the normal in most of the province of Assam, though it was deficient in parts of the Assam Valley in the early autumn, and generally weak in the winter months. The area cropped was the same as in the previous year, namely, rather more than $5\frac{1}{3}$ millions of acres, of which $3\frac{1}{5}$ millions were under rice, one-third of a million under tea, and a quarter of a million under mustard. The various rice crops yielded good out-turns, in many districts well above the normal. The yield of tea was exceptionally large, as is shown later in this chapter. Assam.

The chief experiments made at the Shillong experimental farm were with potatoes of many varieties and with different systems of manuring. There is also a fruit garden at the same place. Silkworm cultivation was again tried on a small scale and is reported to have succeeded, the silk being pronounced to be of a fine quality. This employment seems to be finding favour among the inhabitants of the Khasi Hills.

Nearly all the village officials under the Land Records Department had obtained a certificate in surveying. There were three survey schools in the province, at which 114 certificates were granted during the year. The

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rules for the maintenance of land records were entirely revised, and the new rules were introduced in the districts of Kamrup and Sibsagar.

Madras.

There was a considerable deficiency in the total rainfall of the year 1904–05 throughout the Madras Presidency, except in certain coast districts. The area under crops fell to $27\frac{1}{5}$ millions of acres, against $29\frac{1}{2}$ millions in 1903–04, and an average of $27\frac{4}{5}$ millions for the past five years. Rice covered $6\frac{4}{5}$ millions, showing a decrease of nearly a million acres compared with the preceding year, but millets covered approximately the same area ($8\frac{1}{2}$ million acres) as before. The area under cotton was 1,909,000 acres, or 169,000 acres above the corresponding area in 1903–04, as the result of timely rainfall and of the good prices prevailing. The out-turn of rice, according to the returns, ranged between 65 and 90 per cent. of a normal crop; but the averages are based on the figures of the village officials, which are not very trustworthy. The average prices of rice for the year were higher than the normal rates, which are based on the decennial average.

Owing to the unfavourable character of the season the practical results achieved in the Government experimental farms at Bellary and Koilpatti, regarding cotton and other crops, were generally inconclusive. Various experiments with cotton were, however, being conducted, and will be continued, and arrangements have been made for the distribution of seed. In the Samalkota sugar-cane farm, some useful and important results were obtained. Detailed proposals were under consideration for the establishment of a pumping irrigation farm in the Bellary district, for the conduct of experiments in irrigated cultivation. A temporary farm was established in South Arcot for the study of diseases affecting the ground nut crop, and a farm was to be opened in Malabar to investigate those of the pepper vine. The closing of the Agricultural College at Saidapet and the institution in its stead of a central technical School of Agriculture at a better site were under contemplation.

The scheme for the maintenance of land records, referred to in last year's Statement, was introduced wholly or partly in seventeen districts, where the records were fairly complete and ready for maintenance. The new Deputy Director of Land Records visited sixteen districts, and the land records staff was gradually getting into good working order.

Bombay.

The monsoon of the season 1904–05 in Bombay was late and weak, except on the west coast. Heavy rain in September saved the withering autumn crops and caused a large extension of spring crop sowings, but locusts and frosts and, in Gujarat, lack of rain rendered the yield of the spring crops a poor one. In most parts of Sind cultivation was restricted by a low inundation. The area under crops in the whole Presidency was $27\frac{1}{3}$ millions of acres, of which $3\frac{2}{3}$ millions were in Sind; the figures for the Presidency proper show a fall of 2 per cent. as compared with the previous year, those for Sind a fall of 11 per cent. Forty-six per cent. of the crop area of the Presidency, compared with 44 per cent. in 1903–04, consisted of millets; cotton covered 13 per cent. of it, a considerable decrease in the Deccan and Karnatak being partly balanced by an expansion in Gujarat; the wheat area rose from 2 to $2\frac{1}{4}$ million acres. The area irrigated in the Presidency included three million acres in Sind irrigated by Government or private canals, the area irrigated in the Presidency proper being 789,000 acres, chiefly of well irrigation. As regards the yield of crops, the valuations reported are in almost all cases poor, in few cases rising above two-thirds of a normal crop; and though the tendency of the reporting officers is said to be to under-estimate the yield, it was not in any case a good one.

Nine agricultural stations were in charge of the Department of Agriculture, and there was one completely equipped farm in each of the chief agricultural divisions of the Presidency, excepting only the Konkan, a deficiency which has been subsequently supplied. The three new farms at Dharwar, Nadiad, and Mirpur Khas were being got into order. The most important experiments were those with cotton, and the most successful among these was the introduction of Egyptian cotton into Sind, where it was being tried on canal irrigated land. Though it is yet to be seen whether deterioration will ensue, no signs of it have been observed in the crop of the second year. A large number of experiments with sugar cane, ground nut, wheat, tobacco, and other crops were in progress. With a view to the development of agriculture, and

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in connection with the scheme for improving the system of agricultural education and research by developing the teaching of the Poona College of Science, appointments of Professor of Agriculture, Economic Botanist, and Agricultural Chemist were created for the Presidency.

The Land Record staff was at work in all the districts of the Presidency proper, and, in addition to their ordinary inspection duties, the officers proceeded with the training of village accountants and the preparation of a record of rights. The latter was newly started in 25 subdivisions, and continued in others, the superintendents exercising a general supervision over the work, which is prepared in the first instance by the village accountants.

## AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE.

Before giving the area under different crops, and its territorial distribution, for 1903–04, the most recent year for which complete figures are available, it is necessary to explain that the "crop area" is in all cases greater than the area of cultivated land, owing to double cropping. The extent to which this practice prevails is shown at the end of the following tables, which contain the detailed analysis of the crop area of British India.

### TERRITORIAL DISTRIBUTION OF THE PRINCIPAL CROPS IN 1903–04.

*Figures in Thousands of Acres, omitting 000.*

I.

| —— | Rice. | Wheat. | Barley. | Millets. | | | Gram (Pulse). | Other Food-Grains, including Pulses. | Total Food-Grains. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cholum or Jowar. | Cumbu or Bajra. | Other Millets and Maize. | | | |
| Upper Burma | 2,236 | 34 | — | 1,045 | 104 | 101 | 80 | 355 | 3,955 |
| Lower Burma | 7,070 | — | — | — | — | 19 | — | 25 | 7,116 |
| Assam | 3,960 | 10 | — | — | — | 2 | — | 100 | 4,072 |
| Bengal | 34,903 | 1,509 | 1,516 | 125 | 63 | 2,780 | 1,206 | 5,624 | 47,726 |
| Agra | 3,768 | 5,585 | 3,460 | 2,194 | 2,058 | 1,432 | 3,871 | 4,313 | 26,681 |
| Oudh | 2,271 | 2,229 | 1,187 | 349 | 428 | 918 | 1,558 | 2,287 | 11,227 |
| Punjab | 688 | 7,818 | 940 | 1,625 | 2,331 | 1,207 | 2,794 | 1,770 | 19,173 |
| North-West Frontier Province | 33 | 903 | 263 | 71 | 196 | 371 | 158 | 96 | 2,091 |
| Sind | 884 | 549 | 17 | 673 | 946 | 2 | 83 | 262 | 3,416 |
| Bombay | 1,564 | 1,554 | 22 | 6,087 | 4,831 | 633 | 567 | 3,076 | 18,334 |
| Central Provinces | 4,455 | 2,922 | 19 | 1,787 | 55 | 152 | 927 | 4,579 | 14,898 |
| Berar | 34 | 453 | — | 2,825 | 59 | 3 | 205 | 427 | 4,006 |
| Madras | 8,278 | 25 | 3 | 4,174 | 3,037 | 1,815 | 154 | [illegible] | 24,400 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 81 | 22 | 53 | 93 | 30 | 71 | 18 | 46 | 412 |
| Total | 70,225 | 23,613 | 7,480 | 21,048 | 14,138 | 9,508 | 11,621 | 29,874 | 187,507 |

II.

| —— | Oilseeds. | Condiments and Spices. | Sugar. | Fibres. | | | Indigo. | Opium. | Tobacco. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cotton. | Jute. | Other Fibres. | | | |
| Upper Burma | 931 | 29 | 23 | 145 | — | — | — | — | 23 |
| Lower Burma | 66 | 23 | 11 | 15 | — | — | — | — | 41 |
| Assam | 335 | 8 | 41 | 4 | 39 | 3 | — | — | 5 |
| Bengal | 3,828 | 276 | 589 | 80 | 2,465 | 152 | 249 | 215 | 538 |
| Agra | 1,021 | 56 | 895 | 820 | — | 90 | 131 | 253 | 40 |
| Oudh | 347 | 9 | 194 | 15 | — | 22 | 10 | 188 | 12 |
| Punjab | 1,077 | 28 | 331 | 1,048 | — | 52 | 54 | 9 | 54 |
| North-West Frontier Province. | 75 | 3 | 27 | 31 | — | — | — | — | 6 |
| Sind | 410 | 4 | 2 | 207 | — | 1 | 5 | — | 8 |
| Bombay | 1,696 | 161 | 57 | 3,572 | — | 152 | 1 | — | 72 |
| Central Provinces | 2,143 | 38 | 18 | 1,306 | — | 72 | — | — | 17 |
| Berar | 388 | 44 | 2 | 2,851 | — | 22 | — | — | 15 |
| Madras | 2,196 | 429 | 126 | 1,770 | — | 103 | 262 | — | 145 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | 33 | — | — | 32 | — | — | — | 3 | — |
| Total | 14,546 | 1,108 | 2,416 | 11,896 | 2,504 | 669 | 712 | 668 | 976 |

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III.

| | Tea. | Coffee. | Fodder Crops. | Orchards and Garden Produce. | Miscellaneous Crops. | | Total Area Cropped during the Year. | Area Cropped more than once. | Net Area Cropped during the Year. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Food. | Non-Food. | | | |
| Upper Burma | 2 | — | 23 | 37 | 43 | 7 | 5,218 | 348 | 4,870 |
| Lower Burma | — | — | 3 | 341 | 36 | 78 | 7,730 | 5 | 7,725 |
| Assam | 338 | — | 36 | 351 | 30 | 33 | 5,295 | 348 | 4,947 |
| Bengal | 136 | — | 68 | 1,084 | 1,229 | 1,028 | 59,763 | 10,832 | 49,931 |
| Agra | 8 | — | 873 | 268 | 207 | 79 | 31,922* | 5,501 | 26,421 |
| Oudh | — | — | 115 | 100 | 99 | 6 | 12,344 | 3,054 | 9,290 |
| Punjab | 10 | — | 2,132 | 136 | 330 | 23 | 28,376* | 3,464 | 24,912 |
| North-West Frontier Province | — | — | 51 | 7 | 44 | 14 | 2,770* | 442 | 2,328 |
| Sind | — | — | 2 | 39 | — | 30 | 4,124 | 328 | 3,796 |
| Bombay | — | — | 15 | 118 | — | 3 | 24,181 | 675 | 23,506 |
| Central Provinces | — | — | 275 | 91 | 19 | 7 | 18,884 | 1,511 | 17,373 |
| Berar | — | — | — | 28 | 1 | — | 7,357 | 19 | 7,338 |
| Madras | 12 | 52 | 238 | 828 | — | 405 | 30,966 | 3,992 | 26,974 |
| Minor Provinces (Ajmere, Coorg, and Manpur). | — | 52 | — | 3 | 4 | — | 539 | 49 | 490 |
| Total | 506 | 104 | 3,831 | 3,431 | 2,042 | 1,713 | 239,469 | 30,568 | 208,901 |

* These figures show area sown, and exceed the aggregate of the preceding columns (which, in the case of these provinces, take into account the result of sowing) by half a million acres in Agra, nearly the same amount in the North-West Frontier Province, and 4 million acres in the Punjab.

Regarding some of the more important staples of Indian agriculture, particulars for the year 1904–05 are given below; they are taken from the estimates published by the Government of India, which in many cases do not correspond exactly with the figures given above for the year 1903–04, the chief difference being that Native States are here included.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

| | Average Wheat Area for preceding Five Years. | Areas Cultivated with Wheat in | |
|---|---|---|---|
| | | 1903-04. | 1904–05. |
| | Acres. | Acres. | Acres. |
| Punjab | 6,171,600 | 7,765,700 | 7,712,100 |
| North-West Frontier Province | 820,800 | 994,000 | 882,200 |
| United Provinces | 6,542,600 | 7,788,700 | 7,667,500 |
| Bengal | 1,491,400 | 1,508,600 | 1,455,500 |
| Central Provinces | 2,219,800 | 2,921,200 | 3,069,100 |
| Bombay | 1,673,900 | 2,174,100 | 2,115,300 |
| Sind | 415,900 | 586,900 | 510,900 |
| Berar | 241,800 | 452,700 | 427,300 |
| Hyderabad | 721,500 | 1,134,800 | 1,126,700 |
| Rajputana | 726,100 | 1,125,300 | 1,058,300 |
| Central India | 1,238,500 | 1,956,000 | 2,201,400 |
| Mysore | 3,600 | 5,700 | 5,300 |
| Total | 22,267,500 | 28,413,700 | 28,231,600 |

The area under wheat in 1903–04, though not a record, was the highest of the decade, being about five million acres greater than in the preceding year, and this year's area shows a fall of less than one per cent. The yield, however, diminished by about 2,100,000 tons, or nearly 22 per cent., and the United Provinces, where the effects of frost and rust, the general causes of injury to the crop, were most disastrous, account for $1\frac{1}{3}$ million tons of the deficiency. Fortunately little injury occurred in the Punjab and the North-West Frontier Province, where the yield was considerably above the normal, though harvesting was retarded by some weeks. In making comparisons with 1904 it must be remembered that the yield of that year was abnormally prolific, exceeding any previous record by 1,000,000 tons, and this year's out-turn of $7\frac{1}{2}$ million tons is still well above the average. This estimate does

| | 1903-04. | 1904-05. |
|---|---|---|
| | Tons. | Tons. |
| Punjab | 3,076,200 | 2,855,400 |
| United Provinces | 3,230,000 | 1,897,000 |
| Central Provinces | 750,100 | 760,600 |
| Bombay | 515,800 | 345,400 |
| Bengal | 527,800 | 444,100 |
| Central India | 360,900 | 448,800 |
| North-West Frontier Province. | 302,100 | 267,600 |
| Rajputana | 294,900 | 198,500 |

not include the crop grown in the Native States of the Punjab. Details of the estimated out-turn of the year in the chief wheat-growing provinces are given in the margin, in comparison with the yield of 1903–04. The total estimate for India was 7,519,600 tons, against 9,601,400 tons in the preceding year, and an average of 6,686,000 tons for the five preceding years. Wheat exports are subject to great fluctuations. The figures are as follows :— AGRICULTURAL PRODUCE.

| | | | | | |
|---|---|---|---|---|---|
| 689,000 | tons in | 1889-90 | 485,000 | tons in | 1899-1900 |
| 1,515,000 | „ | 1891-92 | 2,500 | „ | 1900-01 |
| 500,000 | „ | 1895-96 | 515,000 | „ | 1902-03 |
| 95,000 | „ | 1896-97 | 1,296,000 | „ | 1903-04 |
| 976,000 | „ | 1898-99 | 2,150,000 | „ | 1904-05 |

The area under, and the yield of, the main oil-seed crops for all India may be approximately given thus:— OIL SEEDS.

| | Average for preceding Five Years. | 1903–04. | 1904–05. |
|---|---|---|---|
| Area in acres* — Linseed, rapeseed, and mustard. | 5,661,200 | 7,192,500 | 7,261,400 |
| Area in acres* — Sesamum oil seeds | 3,144,000 | 4,143,200 | 3,574,500 |
| Total | 8,805,200 | 11,335,700 | 11,835,900 |
| Yield in tons for all seeds, so far as reported | 1,628,900 | 2,232,500 | 1,463,600 |

* These figures do not include an area in the United Provinces, estimated at about 3¾ millions of acres, on which the crops are grown mixed with other crops. The estimated yield of that area is included in the figure given.

The above area included 3,635,500 acres under linseed and 3,626,000 acres under rapeseed and mustard, in each case slightly more than the large area of 1903–04. The inclement conditions of severe frosts followed by damp and cloudy weather, which seriously diminished the out-turn of wheat, caused still greater damage to the more delicate oil-seed crops. Thus pure linseed (*i.e.*, linseed sown alone), with a yield of 296,000 tons, was worse by nearly 37 per cent., but the total out-turn of 540,000 tons for pure rapeseed was only 13½ per cent. lower, as two-thirds of that crop is grown in Bengal, where it did not do badly. Mixed rapeseed in the United Provinces, however, decreased by 38 per cent. to 336,000 tons, according to the very rough estimates for that crop. The season was also unfavourable for the sesamum crop. Deficiency of rain, caused by the late arrival of the monsoon, and later, excessive rain, followed by drought, proved highly prejudicial to the yield, which is stated as less than half the yield given in 1903–04. The total amount and value of the oil seeds exported in the last two years is shown in the margin. The decline in value, against an increase in quantity, was due to the overstocked condition of the market, which caused a further fall in prices. There has, however, been a recovery in prices since the period under report. The good export of earthnuts in 1903–04 was not maintained, but in addition to the figure given in the marginal table, which relates to the trade of British India only, there is a large export of groundnuts from Pondicherry to France. The season of 1904 was not quite so favourable for the crop as that of 1903, and the total area under groundnut in Madras and Bombay is given as 426,100 acres, against 474,200 acres in 1903–04 and an average of 347,900 acres as the average of the preceding five years.

| | 1903–04. | | 1904–05. | |
|---|---|---|---|---|
| | Quantity. | Value. | Quantity. | Value. |
| | Tons. | £ | Tons. | £ |
| Linseed | 430,800 | 3,829,400 | 559,100 | 4,219,100 |
| Rapeseed | 217,100 | 1,689,400 | 257,700 | 1,822,500 |
| Cotton-seed | 133,900 | 445,500 | 126,400 | 410,900 |
| Sesamum | 175,600 | 1,619,300 | 126,900 | 1,160,300 |
| Castor-seed | 78,300 | 461,300 | 73,000 | 461,100 |
| Earthnuts | 96,100 | 757,900 | 83,700 | 645,200 |
| Other sorts | 102,300 | 874,400 | 106,300 | 783,000 |
| Total | 1,234,100 | 9,677,200 | 1,332,200 | 9,502,100 |

AGRICULTURAL PRODUCE.

RICE.

The winter rice crop of Bengal is by far the largest factor in the statistics for the three provinces mentioned in the table below, and it covered, in the year under report, an area of more than 30 million acres, compared with 27⅓ millions in the preceding year. The figures estimated for the last two years are as follows :—

| | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of preceding Five Years. | 1903–04. | 1904–05. | Average of preceding Five Years. | 1903–04. | 1904–05. |
| Bengal - - - | 37,674,500 | 34,931,500 | 37,895,200 | 17,105,900 | 15,833,500 | 16,598,900 |
| Madras - - - - | 6,853,400 | 7,768,300 | 6,822,100 | 2,524,100 | 2,910,000 | 2,170,200 |
| Burma (15 districts) - - | 6,280,000 | 6,761,700 | 6,770,700 | 2,670,200 | 3,220,500 | 3,036,700 |

Other provinces, notably Assam, the United Provinces, and the Central Provinces, produce a large quantity of rice, a considerable proportion of their cultivable area (generally amounting to about 20 million acres) being thus employed, as may be seen from the table given earlier in this chapter. The quantity of rice and rice-flour exported from India and Burma beyond the sea in 1904–05 was 2,470,200 tons, which was about 10 per cent. above the total of the preceding year. About 76 per cent. of the exports went from Burma, which also exported 174,100 tons of rice to other provinces and states in India, some of which was for trans-shipment for the East Coast of Africa. It is estimated that Burma had for the year 1905 an exportable surplus of 1,936,400 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury a net sum of £859,000 in 1904–05, against £780,900 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

COTTON.

The area under cotton in India is returned and estimated as follows :—

| | Average Cotton Area for preceding Five Years. | 1903–04. | 1904–05. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Madras (ryotwari villages only) - - | 1,396,000 | 1,664,700 | 1,809,700 |
| Bombay, Sind, and Bombay Native States - | 4,420,200 | 5,911,200 | 5,293,100 |
| United Provinces - - - - | 1,073,800 | 841,400 | 1,203,400 |
| Punjab and North-West Frontier Province - | 1,047,200 | 1,241,000 | 1,629,000 |
| Central Provinces - - - - | 904,300 | 1,292,300 | 1,540,600 |
| Berar - - - - - - | 2,482,500 | 2,851,200 | 3,069,700 |
| Nizam's Dominions - - - - | 1,757,300* | 2,660,700 | 2,730,700 |
| Burma - - - - - - | 147,500 | 165,200 | 188,900 |
| Central India - - - - | 522,800 | 772,200 | 843,500 |
| Rajputana - - - - - | 382,900 | 394,800 | 463,600 |
| Bengal - - - - - | 135,000 | 95,800 | 89,800 |
| Assam - - - - - | — | 31,000 | 32,000 |
| Mysore - - - - - | — | 58,200 | 58,200 |
| Ajmere-Merwara - - - - | — | 33,100 | 33,100 |
| Total - - | 14,269,500 | 18,012,800 | 18,985,300 |

* Incomplete.

In Bombay the crop suffered from want of moisture, cold, and disease, so that the area under both early and late cotton was 11 per cent. smaller than in the previous year, and the estimated out-turn fell by 36 per cent. In Sind the crop was in fair condition, but the estimated yield was still 12 per cent. below that of 1903–04. Want of rain is reported to have seriously damaged the crop in Madras, where, in spite of an addition of 9 per cent. to the area, the estimated out-turn was lower by 22 per cent. Elsewhere the season was generally favourable, and there was a notable improvement in Rajputana. The aggregate figures, which, however, do not include the *zamindari* area of Madras (for which only incomplete reports are obtained) and certain non-

reporting tracts, are approximately 19 million acres (5 per cent. greater than the previous year and 30 per cent. above the average), and nearly 3½ million bales (10 per cent. better than 1903–04 and 40 per cent. above the average). AGRICULTURAL PRODUCE.

The exports of raw cotton from India in recent years have been as follows:—

| | | | | |
|---|---|---|---|---|
| 1898–99 | 5,411,000 | cwts., | valued at | £7,459,000 |
| 1899–1900 | 4,373,000 | „ | „ | 6,617,000 |
| 1900–01 | 3,576,000 | „ | „ | 6,752,000 |
| 1901–02 | 5,700,000 | „ | „ | 9,617,000 |
| 1902–03 | 6,045,000 | „ | „ | 9,838,000 |
| 1903–04 | 7,931,000 | „ | „ | 16,251,000 |
| 1904–05 | 5,657,700 | „ | „ | 11,623,000 |

The extraordinary level to which the price of cotton had risen by the end of 1903–04, which was the cause of the high figures of amount and value of the cotton exports in that year, was not maintained in the year under report, and the figures therefore show a considerable relapse. References have already been made, in the earlier part of this chapter, to the work that is being done in the various provinces with a view to classifying the Indian cottons, introducing the most suitable varieties, and extending the area under cotton cultivation. Information respecting the arrangements made with that object between the Government of India and the British Cotton Growing Association was given in a paper presented to Parliament during 1904, viz., "The Improvement of Indian Cotton" (Cd. 1982); and Professor Dunstan's "Report on Cotton Cultivation in the British Empire and in Egypt" (Cd. 2020) contains further particulars in respect of cotton growing prospects.

The following is an estimate of the cultivation and the production of tea in British India and Travancore during recent years; no figures are available regarding its cultivation in Cochin State:— TEA.

| | Area under Tea, in Acres (Mature and Immature Plants). | | | Production of Tea in Lbs. | | |
|---|---|---|---|---|---|---|
| | 1902. | 1903. | 1904. | 1902. | 1903. | 1904. |
| Bengal | 135,200 | 136,000 | 134,704 | 46,028,000 | 50,888,000 | 53,886,000 |
| Assam | 339,700 | 338,300 | 337,800 | 132,117,000 | 145,199,000 | 152,849,000 |
| Madras | 6,600 | 8,800 | 8,600 | 1,067,000 | 1,124,000 | 1,639,000 |
| United Provinces | 8,100 | 8,000 | 8,000 | 2,139,000 | 2,071,000 | 2,573,000 |
| Punjab | 9,300 | 9,400 | 9,300 | 1,616,000 | 1,915,000 | 1,917,000 |
| Travancore | 24,900 | 24,600 | 24,700 | 5,360,000 | 7,242,000 | 9,074,000 |
| Burma | 1,500 | 1,500 | 1,400 | 262,000 | 271,000 | 266,000 |
| Total | 525,300 | 526,600 | 524,500 | 188,589,000 | 208,710,000 | 222,204,000 |

There is reason to believe that the actual reduction in the area under tea has been greater than appears from these figures. During some former years, notably 1897 and 1898, the growth of the tea area was very rapid, but the present tendency is towards restricting its further extension, under the discouragement of low prices. There was a general fall in the prices of tea at the Calcutta sales, the average for the year being little above the lowest recorded averages, namely, those of 1900 to 1902. At present it may be that the larger out-turn of tea is due to the coming into fuller bearing of the area at present under immature plants. If it is due to this cause, the next few years will see a restriction of output, which will put the industry on a sounder basis, since the area under immature plants is small, and is not easily or quickly enlarged. The total area under tea was 83 per cent. greater than it was in 1885. The output was 211 per cent. greater, and showed, according to the returns, an increase of more than 13 million lbs. in 1904; but here again it is suspected that the figures are not accurate, as the amount of the exports to foreign countries by sea give reason to believe that the out-turn in Assam and Bengal has been over-estimated by about 2 million lbs. Of the output shown above, rather more than 5⅘ million lbs. was green tea in 1903. The tea gardens of India are reported to have given employment during 1904 to 475,300 persons permanently and 76,000

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temporarily. The exports of Indian tea by sea during the last three years are returned as follows :—

| — | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom | 152,806,000 | 170,187,000 | 167,691,000 |
| „ Canada | 5,554,000 | 8,576,000 | 12,607,000 |
| „ Australia | 4,569,000 | 6,402,000 | 6,601,000 |
| „ China, Treaty Ports | 379,000 | 5,702,000 | 612,000 |
| „ Russia | 3,968,000 | 4,547,000 | 9,332,000 |
| „ Persia | 3,254,000 | 2,171,000 | 3,136,000 |
| „ Turkey in Asia | 3,273,000 | 2,830,000 | 4,009,000 |
| „ United States | 2,672,000 | 1,528,000 | 2,237,000 |
| „ Other Countries | 4,850,000 | 5,217,000 | 5,662,000 |
| Total | 181,424,000 | 207,160,000 | 211,887,000 |

But, owing to the low prices, exports greater by 2·3 per cent. gave a cash return less by 1·1 per cent. The precise effect of the imposition in April 1904 of an additional duty of twopence a pound on tea entering the United Kingdom is not easy to state. It seems to have created a demand for cheap teas, which stimulated the production of such teas and increased the imports of China tea. According to the British returns, the tea imported into the United Kingdom for home consumption or re-export has come from China, India, and Ceylon in the following proportions :—

| In the Year | From China. | From India. | From Ceylon. |
|---|---|---|---|
| 1865 | 93 per cent. | 2 per cent. | 0 per cent. |
| 1875 | 86 „ | 13 „ | 0 „ |
| 1885 | 66 „ | 30 „ | 2 „ |
| 1895 | 16 „ | 46 „ | 32 „ |
| 1902 | 6 „ | 54 „ | 36 „ |
| 1903 | 7 „ | 55 „ | 31 „ |
| 1904 | 9 „ | 55 „ | 31 „ |
| 1905 | 5 „ | 54 „ | 36 „ |

The additional duty was remitted with effect from the 1st July 1905.

COFFEE.

Cultivation of coffee is restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The area reported as under coffee at the end of 1904, with corresponding figures for the two preceding years, is given below; but the figures are not of much value, as information is in some cases withheld by planters, especially in Madras :—

| — | 1902. | 1903. | 1904. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Coorg | 59,417 | 52,638 | 48,142 |
| Madras | 34,950 | 39,557 | 35,858 |
| Mysore | 114,660 | 111,854 | 104,287 |
| Travancore and Cochin | 6,217 | 6,334 | 6,256 |
| Burma, Assam, &c. | 373 | 346 | 335 |
| Total | 215,617 | 210,729 | 194,878 |

It is noticeable that while the area has been steadily diminishing, the exports which account for nearly the whole of the crop have steadily risen during the last five years. The prices of coffee as declared for export purposes had fallen from Rs. 75½ per cwt. in 1894 to Rs. 47 in 1903–04, but rallied to Rs. 50⅜ in the year under report. There is little or no local market for coffee, and the competition of cheap Brazilian coffee has affected

the price in the consuming markets. The amount of exports from British India is shown below :— AGRICULTURAL PRODUCE.

| —— | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| To United Kingdom - - | 17,416,000 | 17,075,000 | 20,983,000 |
| „ France - - - | 8,311,000 | 11,717,000 | 10,850,000 |
| „ other Countries - - | 4,419,000 | 3,828,000 | 5,087,000 |
| Total - - | 30,146,000 | 32,620,000 | 36,920,000 |

The returns show that 22,500 persons were employed permanently, and 51,900 temporarily, on the coffee estates, but the figures seem incomplete.

The amount of cinchona bark exported in 1904–1905 was about the same as in 1903–04, there being no continuance during the year of the decline which had been in progress in previous years, resulting in a fall from $3\frac{1}{4}$ million lbs. exported in 1899–1900 to $1\frac{1}{10}$ million lbs. in 1904–05. The amount of exports, with the amount of private bark purchased by the Government (480,000 lbs. in the year under report) is a rough index of the production outside the Government plantations. No other estimate is available. CINCHONA.

On the Government cinchona plantations of the Darjeeling district in Bengal, 182 acres were planted during 1904–05, and 473,000 plants were put out, making the total in the permanent plantations at the end of the year up to more than $3\frac{1}{2}$ millions. The rainfall was a little above the average, but hail and frost did some damage. The quantity of dry bark harvested on the plantations was 311,300 lbs., and the purchases of bark from private plantations amounted to 106,800 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 491,200 lbs. of bark, producing 13,068 lbs. of sulphate of quinine, 545 lbs. of sulphate of cinchonidine, and 2,026 lbs. of cinchona febrifuge. The issues of quinine rose to 14,900 lbs., but those of cinchona febrifuge fell to 3,400 lbs., owing to smaller official demand. The quinine supplied to the public is sold at post offices in 5-grain packets; the febrifuge is sold at the factory; but a large part of the issues are made to Government officers for dispensaries and medical depôts.

The weather was unfavourable in the Madras plantations, and the young plants suffered from drought; the stock of trees was not materially increased, amounting to $2\frac{1}{3}$ millions. The year's crop amounted to 162,000 lbs. of bark, besides 373,200 lbs. purchased from private plantations. The amount of bark worked up in the factory was 504,000 lbs., consisting for the most part of purchased bark. The produce was 12,900 lbs. of sulphate of quinine, 3,150 lbs. of cinchona febrifuge, and 550 lbs. sulphate of cinchonidine. From this factory are supplied the requirements of Madras, Bombay, the United Provinces, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore; the issues during the year were 16,800 lbs. of quinine and 4,164 lbs. of the febrifuge. The scheme for the sale of quinine at post offices in the Madras Presidency and elsewhere in pice (farthing) packets containing 7 grains came into operation in the year under report. Quinine was issued to local fund and municipal dispensaries at the rate of Rs. 13 per lb., and the febrifuge was sold to the public at the rate of about Rs. 12 per lb., the cost being about Rs. $11\frac{1}{4}$ per lb.

The jute crop is grown almost entirely in Bengal; in the year 1904 it was damaged in many districts by untimely and excessive rain, and the rate of out-turn is variously estimated at 76 and 85 per cent. of a normal yield. The statistics of the area under jute have been undergoing revision, and the normal area is stated in the return for 1904 as 2,470,000 acres; the area of the 1904 crop was 2,850,000 acres, and this has been considerably exceeded in the following crop. The total yield, in bales of 400 lbs., was estimated at $7\frac{1}{4}$ million bales in 1904, against $6\frac{1}{3}$ millions from a much smaller area in 1903, and an average of $5\frac{1}{2}$ million bales from two million acres in each of the last five years. These figures do not include the small jute production of Assam, of Cooch Behar, and of Nepal, which would increase the total JUTE.

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estimate by about 120,000 bales. The fluctuations of the jute export trade during recent years have been as follows:—

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | Value. |
| | Cwts. | £ | £ | £ |
| 1883–84 | 7,018,000 | 3,062,000 | 890,000 | 3,952,000 |
| 1891–92 | 8,532,000 | 4,566,000 | 1,675,000 | 6,241,000 |
| 1897–98 | 15,023,000 | 6,754,000 | 3,954,000 | 10,708,000 |
| 1898–99 | 9,865,000 | 4,628,000 | 3,866,000 | 8,494,000 |
| 1900–01 | 12,415,000 | 7,245,000 | 5,243,000 | 12,488,000 |
| 1901–02 | 14,755,000 | 7,865,000 | 5,807,000 | 13,672,000 |
| 1902–03 | 13,036,000 | 7,418,000 | 6,013,000 | 13,431,000 |
| 1903–04 | 13,721,000 | 7,812,000 | 6,313,000 | 14,125,000 |
| 1904–05 | 12,879,000 | 7,979,000 | 6,626,000 | 14,605,000 |

Of the raw jute exports in 1904–05, over 40 per cent. went to the United Kingdom, 21 per cent. to Germany, 15 per cent. to the United States, and 10 per cent. to France. The chief feature of the year's returns is a falling off in the amount of exports, except in the case of gunny cloth, accompanied by a general increase in the declared value.

INDIGO.

The reports on the indigo crop of 1904 are very unfavourable. The area under cultivation, as shown in the marginal table, had diminished by nearly one-third since the previous year; and the estimated out-turn was lower by 46 per cent. The character of the rainfall, at one time deficient, at another in great excess, is largely accountable for the bad result. The out-turn for the four provinces in which the crop is grown to any extent is given as 56,200 cwt. altogether, compared with 102,800 cwt. in 1903 and an average of 119,300 cwt. for each of the preceding five years. The total exports of past years have varied as follows:—

| | Average of preceding Five Years. | 1903. | 1904. |
|---|---|---|---|
| | Acres. | Acres. | Acres. |
| Bengal | 377,700 | 249,700 | 223,100 |
| United Provinces | 207,700 | 104,800 | 74,200 |
| Punjab | 70,000 | 74,200 | 53,000 |
| Madras | 238,100 | 241,900 | 123,500 |
| Total | 893,500 | 706,600 | 473,800 |

| | Cwts. | | £ | |
|---|---|---|---|---|
| 1890–91 | 118,000 | valued at | 2,049,000 | Exports by sea, besides a small quantity annually exported across the land frontiers of India. |
| 1895–96 | 187,000 | „ | 3,570,000 | |
| 1896–97 | 170,000 | „ | 2,914,000 | |
| 1898–99 | 135,000 | „ | 1,980,000 | |
| 1900–01 | 102,000 | „ | 1,424,000 | |
| 1901–02 | 90,000 | „ | 1,235,000 | |
| 1902–03 | 65,000 | „ | 804,000 | |
| 1903–04 | 60,400 | „ | 717,500 | |
| 1904–05 | 49,300 | „ | 556,400 | |

SUGAR.

The area under sugar in India is estimated as follows for the provinces mentioned:—

| | Area in Acres. | | | Out-turn in Tons. | |
|---|---|---|---|---|---|
| | Average of Five Preceding Years. | 1903–04. | 1904–05. | 1903–04. | 1904–05. |
| Bengal | 776,400 | 632,400 | 637,800 | 653,900 | 631,400 |
| United Provinces | 1,216,000 | 1,089,600 | 1,243,000 | 877,100 | 1,183,400 |
| Punjab and North-West Frontier Province. | 360,600 | 348,300 | 351,000 | 257,300 | 261,300 |
| Madras | 48,700 | 44,300 | 48,200 | 83,700 | 90,000 |

The reported area under sugar cane was 2,280,000 acres, or nearly 8 per cent. more than in the year 1903–04. In the United Provinces, which produce more than half the crop, the season was very favourable, and the area increased by 153,400 acres, or 14 per cent. The only large deficiency compared with the average of the five years preceding 1903–04 was in Bengal,

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where it is said to have been 18 per cent., but the estimates for that province are based on very uncertain information, and the annual revisions of the district estimates are thus responsible for much of the reported decrease. The total yield is shown as 2,166,000 tons, and the improvement compared with last year is nearly 16 per cent. In the United Provinces the increase was 35 per cent., in Madras 7½ per cent., and in the Punjab 2½ per cent. The crop in Bengal suffered from drought during the latter part of the season, and there is consequently an estimated decrease of 3½ per cent. The imports of sugar, including confectionery and molasses, during recent years are given as follows, the figures representing for the most part refined sugar :—

| —— | 1898–99. | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| From Austria-Hungary | 53,187 | 38,891 | 66,065 | 112,897 | 44,401 | 14,963 | 72,062 |
| „ Germany - - | 20,698 | 3,026 | 20,100 | 28,857 | 7,284 | 365 | 8,824 |
| „ Mauritius - | 105,205 | 88,667 | 124,476 | 109,158 | 118,309 | 144,156 | 89,830 |
| „ China - - | 9,284 | 15,850 | 24,372 | 9,138 | 28,430 | 17,449 | 14,250 |
| „ Java - - | 8,125 | 12,909 | 11,262 | 16,033 | 28,683 | 66,777 | 100,167 |
| „ other Countries - | 6,776 | 8,700 | 17,565 | 21,654 | 74,686 | 72,982 | 61,686 |
| Total - | 203,875 | 168,043 | 263,840 | 297,737 | 273,110 | 316,692 | 346,819 |

The table goes back some way, with the view of showing the effect on imports of the countervailing duties imposed in 1899 and subsequent years, but not levied in 1904–05 on the produce of countries which, adhering to the Sugar Convention, had abolished sugar bounties, *i.e.*, nearly all large sugar-producing countries. The chief features of the figures for 1904–05 are the large growth of imports from Java, and the revival of the imports from Austria-Hungary.

## CIVIL VETERINARY DEPARTMENT.

CIVIL VETERINARY DEPARTMENT.

Horse, mule, and donkey breeding.

The entire control of horse, mule, and donkey breeding in certain districts, whether with Imperial or District Board stallions, has been transferred from the Civil Veterinary Department to the Army Remount Department; the work of the Civil Department being confined, as regards those districts, to questions connected with cattle. The districts in question are those, situated in the Punjab, Baluchistan, the United Provinces, and the Bombay Presidency, in which horse or mule breeding specially flourishes. Outside them, the Civil Department controls breeding operations of every sort. Government stallions are allotted only to the selected districts, but the stallions belonging to District Boards in the non-selected districts are controlled by the Department. Of these there were on the register, at the end of 1904–05, 43 horse stallions, 85 ponies, and 68 donkeys, a large proportion in each case being located in the United Provinces and the Punjab. The district horse and donkey stallions covered 11,000 mares in the year under report, a satisfactory increase as compared with former years.

Cattle-breeding.

As regards cattle, the operations of the Department are intended to be directed towards improvement of the breeds, investigation of diseases, and maintenance of veterinary dispensaries. Proposals have been under consideration for the establishment of bull-rearing runs throughout India, by which it is believed that the recognised breeds could be improved or maintained, and measures have been taken in several provinces to give effect to the scheme. The most important centre of cattle-breeding is the Hissar Cattle Farm, which was taken over by the Civil Veterinary Department for a seven years' period in 1898–99. The farm contained 18 herd bulls and 782 cows, selected with great care as good specimens of the Harriana and Nagore breeds, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and zebras. Thirty-eight bulls were issued from the farm during the year, nearly all of them having been purchased by the Punjab Government. They were carefully reared, pure-bred Harriana cattle, and are sure to improve rapidly the stock of the districts in which they are placed. The aim is to maintain a herd of 1,100 cows, so

CIVIL VETERINARY DEPARTMENT.

as to meet present demands for ordnance bullocks and bulls for use of districts and at the farm. Mule and donkey breeding operations are also carried on at the farm; and the cultivation has been greatly improved. A large number of cattle fairs and shows were inspected and favourable reports were generally given of the classes of animals shown. Prizes are offered both out of Imperial and local funds.

**Horse and cattle disease.**

Arrangements were being made to introduce and work the Glanders and Farcy Act in Calcutta, where the disease is very prevalent, as it is also in many other parts of Bengal. It has also increased in Bombay, and it is believed to be imported from Bussorah, whence all the Arab horses are imported.

Among cattle, a considerable number of deaths from rinderpest were reported in Bengal, Burma, and Madras, and the number of deaths from disease in all provinces is returned at 209,800, but the returns are doubtless incomplete. Very material progress was made with preventive inoculation in each province. This practice continues to be very efficacious, and is being introduced whenever possible; opposition to its use is fast disappearing, and it is generally found that villagers now welcome it as a preventive measure. The number of outbreaks of rinderpest dealt with was 480, and 69,100 cattle were immunised, of whom only 370 died after being inoculated. The success attained with anthrax inoculation was no less satisfactory; only one animal died out of 6,100 inoculated, in 80 outbreaks treated. A serum for hæmorrhagic septicæmia was prepared at the Muktesar Laboratory, but no accounts are available yet of its success outside the laboratory. A prophylactic against *charbon symptomatique* obtained from Europe was tried in the Punjab with some success. The Bacteriologist and part of his staff conduct operations at Bareilly during part of the year. There was a great increase in the number of veterinary hospitals and dispensaries; apart from Madras (5) and Burma (82), there were no less than 182 of these useful institutions in the rest of India, compared with 88 only in the preceding year. The increase was chiefly due to an addition of 73 in the Punjab.

**Veterinary instruction.**

The total number of students who passed out from the various veterinary colleges and schools was 105, of whom 57 had gone through a three years' course, the remainder having taken the salutri's two-year course at Bombay or having passed through the Ajmere College or Burma School. The Ajmere College was amalgamated with the Punjab College from April 1904, and for the future the course is to be a three years one. The salutri course at the Bombay College has also been closed. There is a new veterinary college in Madras, which was established in the preceding year and is making satisfactory progress. When the College has been properly equipped it will be one of the best in India. There is a demand for veterinary graduates and assistants, greatly in excess of supply, especially for Punjab men.

## COOPERATIVE CREDIT SOCIETIES.

COOPERATIVE CREDIT SOCIETIES.

Registrars were appointed towards the close of 1904, under the Cooperative Credit Societies Act of that year, in all the large provinces of India, and some good work, chiefly of a preparatory nature, was done by the end of March, 1905. It is not possible, with the information at present available, to say anything as to the prospects of the success of the Act, but some particulars of the work done in various provinces may be recorded. In Bombay, rules under the Act and model byelaws were prepared and published, and twelve societies were registered soon after the close of the year 1904–05, chiefly in the Dharwar district. In the Punjab rules were not prepared; work was begun in four districts, eight new societies and five previously existing societies being registered. In the United Provinces the Registrar found 223 societies in existence, all village banks of the Raiffeisen type, though some of them had ceased operations; his report shows that in 159 of these societies there were 12,200 members, but the amount of loans was still small, the movement being in its infancy. For the Central Provinces, Bengal and Madras, particulars after 1904–05 are not available. In Assam ten societies were organised and registered by the end of the year, four of them being urban and six rural. In Burma four rural societies had been formed, with 188 members; and other societies have been added since the close of the year.

## Mineral Resources and Mining.

Mineral Resources.

In continuation of the review of mineral production in the years 1898 to 1903, which was noticed in last year's Statement, an account of the mineral production in India during 1904 has been published among the Records of the Geological Survey. The following notes are based on that publication.

There has been a great increase in the value of the output of the more important minerals, for which returns are available, the estimate for 1904 being £5,358,000, against £5,011,000 for 1903. This estimate, being based on local value in a country where metallurgical industries are in a rudimentary condition, cannot be compared with similar estimates in countries where the crude mineral product is near its market. But the estimate serves for the comparison of one year with another.

Coal.

In the case of coal, the Indian output has risen from less than 7½ million tons in 1903 to nearly 8¼ million tons in 1904, the Bengal mines giving about 85 per cent. of the total. The figures are given below. It will be noticed that the output in 1903 was only slightly higher than that of 1902, owing partly to a check in the production at the Singareni mine in Hyderabad, by a serious mining accident in June 1903.

| — | Coal produced in | | | | | |
|---|---|---|---|---|---|---|
| | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| Bengal - - | 4,035,300 | 4,978,500 | 5,487,600 | 6,259,200 | 6,361,200 | 7,063,700 |
| Hyderabad - - | 401,200 | 469,300 | 421,200 | 455,400 | 362,700 | 419,500 |
| Assam - - | 225,600 | 216,700 | 254,100 | 221,100 | 239,300 | 266,800 |
| Rewah State - - | 164,600 | 164,500 | 164,400 | 171,500 | 193,300 | 185,800 |
| Central Provinces - | 156,600 | 172,800 | 191,500 | 197,000 | 159,200 | 139,000 |
| Elsewhere - - | 110,000 | 116,900 | 116,900 | 120,300 | 122,700 | 141,900 |
| Total - - | 5,093,300 | 6,118,700 | 6,635,700 | 7,424,500 | 7,438,400 | 8,216,700 |

With the exception of Central India and the Central Provinces, all the important coal sources showed an increased output. The exports of Indian coal, though still small compared with the production and internal consumption, exceeded previous records in 1904, the amount being 602,800, against 441,900 tons in 1903. The railways have reduced their purchases of foreign coal almost to vanishing point, while at the same time their demand has formed a gradually shrinking fraction (29·8 per cent. in 1904) of the total output of the Indian mines, a fact which points to the development of other coal consuming industries. Of the coal which is imported, the greater part comes from the United Kingdom. The exports go for the most part to Ceylon and the Straits Settlements.

Iron.

The iron ore raised in Bengal, mainly for the Barakar Iron and Steel works, amounted to 88 per cent. of the reported total for India. The full returns for the whole country in 1904 show a total quantity of 71,600 tons of ore, valued at about 4 shillings a ton, or £12,600. Prospecting operations in the Raipur district of the Central Provinces have proved the existence of an enormous body of hæmatite, with 68 per cent. of iron. Rich ore bodies have also been determined in the Magurbhanj state of Orissa, and it has been decided by Messrs. J. N. Tata and Sons to erect iron and steel works at Sini, on the Bengal-Nagpur Railway, with the intention of using this ore in conjunction with fuel from the Jherria coal field.

Gold.

The production of gold continued to increase, the amount being 618,700 ounces, valued at £2,366,000, in 1904, compared with 603,200 ounces, valued at £2,302,500, in 1903. Nearly all the output comes from the Kolar gold fields in the Mysore State, though reef mining has recently been commenced in Hyderabad, and yielded more than 10,000 tons in 1904.

MINERAL RESOURCES. MANGANESE.

The production of manganese ore, which had risen very rapidly in recent years, received a check in 1904, when it fell from 171,800 tons to 150,300 tons, owing chiefly to the low market prices which prevailed. Up to 1899, the ore came exclusively from Madras, but since then a still larger quantity (85,000 tons in 1904) has been obtained from the Central Provinces, where the ore bodies are very rich and pure. A small quantity also came from the Jhabua State, in Central India, in the year under report.

MICA.

The returns of the mica output are untrustworthy, but the amount exported in 1904–05 was 19,600 cwt., of which about 13,200 cwt. came from Bengal, the chief seat of the industry. These figures show a decrease in the weight as compared with the output in 1903; but the value was higher. The value of the mica produced in India is much greater than that of the United States and Canada combined.

RUBIES.

The ruby industry in Burma has been prosperous during recent years, the yield of rubies, including small quantities of sapphire and spinel, in the year ending in February 1905, being stated as 265,900 carats. Considerable quantities of rubies are also obtained by native miners, working under licence from the Company, but accurate returns are not available.

PETROLEUM.

The yield of petroleum shows a huge increase, the total for India in 1904 having been 118½ million gallons, against less than 88 million gallons in 1903. It comes almost entirely from Burma, where the increase represents 35·8 per cent., the greatest proportionate development having been in the new Singu field, on the left bank of the Irrawaddy, which produced more than the Yenangyat field, though still much less than the Yenangyaung field. The oil imported in 1904 fell to 70,590,900 gallons, of which 60 per cent. (compared with 80 per cent. in 1903) came from Russia, and 11 per cent. from the United States, the latter trade showing a slight recovery from the low figures of recent years. Exports of petroleum to places outside in India rose from 747,800 gallons to 3,787,700 gallons in 1904.

Inspection of Mines.

The number of mines of all kinds coming under the Mines Act of 1901, that is to say, excluding quarries or excavations of a less depth than 20 feet, was 563 in the year 1904, of which 289 were coal mines, situated chiefly in Bengal. They gave employment to an average daily number of 107,400 persons, of whom 70,300 were men, 31,800 women, and 5,200 children under twelve years old; 71,500 persons, including 21,200 women and 1,400 children, were employed below ground. A regulation requiring mine owners to make returns of the persons employed came into force towards the end of the year, the returns having previously been voluntary; and possibly some of the increase shown by these figures over the number employed in 1903 (4 per cent.) may be due to the change. But there is evidence, apart from the figures, that the demand for labour at coal, mica, and some other mines is increasing, and that natives of India are becoming more willing to work underground. Much of the labour supply is casual or nomadic in character, and a system of weekly in place of daily payments has been introduced at some collieries, with good results in the direction of steadying the supply. The miners appear to have been satisfied with their wages and with the conditions under which they work, as no serious strikes or labour troubles occurred during the year. There were 60 fatal accidents, causing 73 deaths, during the year 1904. These numbers show a reduction as compared with 1903, but the new Chief Inspector of Mines, who has had much experience in mines inspection in England, and had only recently joined his Indian appointment, reported that, while in many of the mines effective discipline and supervision were maintained, there were many cases in which these requisites were wanting. Of the total number of mines, 524 were inspected by the three members of the inspecting staff, and 70 mines by district and other officers.

A professor of mining engineering and a mining instructor have, since the close of the year, been appointed from England for employment in connection with Sibpur Engineering College, Bengal. The former will have charge of mining instruction at the College, while the latter will, for the most part, conduct courses of instruction in mining at selected centres in the mining districts.

MINERAL RESOURCES.

The only Mining Board under the Mines Act of 1901 which was at work during the year under report, was that for Lower Bengal, which, indeed, is by far the most important mining centre in India. The Board held five meetings during the year, and gave valuable advice upon the many important questions referred to it. A code of regulating general rules was published on the 10th March 1904. It refers to coal mines, and contains provisions relating to single shafts and outlets; raising and lowering persons; roads and working places; plans; explosives, ventilation, and lighting; and miscellaneous matters such as fencing.

# CHAPTER XI.

## PUBLIC WORKS.

PUBLIC WORKS.

General.

During the year under review the Public Works Department was represented in the Council of the Governor-General by Sir A. T. Arundel, K.C.S.I. The post of Public Works Secretary was held by Mr. A. Brereton, C.S.I., until his retirement in August 1904, from which date Mr. C. W. Hodson, C.S.I., officiated in the appointment.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength much the same as that of the preceding year, but before its close a large increase had been sanctioned by the Secretary of State.

The following statement shows the composition of the superior engineer establishment as it stood on the 30th June in 1904 and 1903 :—

| | Government of India List. | Government of Madras List. | Government of Bombay List. | Total. |
|---|---|---|---|---|
| Royal Engineer officers | 45 | 2 | 2 | 49 |
| Other military officers | 5 | — | — | 5 |
| *Civil Engineers:* | | | | |
| Appointed from Europe | 315 | 58 | 46 | 419 |
| Europeans appointed in India | 140 | 3 | 5 | 148 |
| Natives appointed in India | 76 | 21 | 28 | 125 |
| Total for 1904 | 581 | 84 | 81 | 746 |
| Total for 1903 | 588 | 83 | 82 | 753 |

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three Presidencies were as follows :—

| | India. | Madras. | Bombay. | Total. |
|---|---|---|---|---|
| Europeans | 170 | 52 | 23 | 245 |
| Natives | 355 | 123 | 180 | 658 |
| Total | 525 | 175 | 203 | 903 |

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial service was formerly recruited entirely from the Royal Indian Engineering College at Cooper's Hill. It has been decided, however, to close this College at the end of October 1906, and the recruitment of certain candidates in 1905 was made from students who had obtained one of the University degrees prescribed by the Secretary of State in Council, or such diploma or other distinction in engineering at some institution connected with one of the Universities named, as was in the opinion of the Vice-Chancellor of that University approximately equivalent thereto. In making these appointments the Secretary of State for India acted with the advice of a Selection Committee, including an eminent representative of the engineering profession. The Provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department

is an Imperial service under the control of the Government of India. The establishment employed on irrigation, and on buildings and roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1904–05 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

| | £ |
|---|---|
| Railways | 24,022,465 |
| Irrigation | 3,071,036 |
| Buildings and Roads | 538,553 |
| TOTAL | 27,632,054 |

EXPENDITURE.

| | Charged to Revenue. | Not Charged to Revenue. |
|---|---|---|
| *Railways :* | £ | £ |
| Construction | 6,250 | 5,897,023 |
| On Revenue Account | 21,917,027 | — |
| *Irrigation :* | | |
| Construction | 117,384 | 361,172 |
| Ditto from Famine Relief Grant | 215,013 | — |
| On Revenue Account | 2,786,353 | — |
| *Buildings and Roads :* | | |
| Military Works | 981,599 | — |
| Civil Works | 4,778,295 | — |
| TOTAL £ | 30,801,921 | 6,258,195 |

The expenditure charged against revenue includes the following items of "Interest on Debt" :—

| | £ |
|---|---|
| Railways | 4,608,297 |
| Irrigation | 1,015,224 |

On the 31st of March 1904, £127,693,312 of permanent public debt had been incurred on account of railways, and £26,143,319 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,009,333, of which £1,268,573 is in respect of the Great Indian Peninsula Railway, purchased in 1900.

RAILWAYS.

## RAILWAYS.

Financial result to the State.

In the financial year 1904–05 there was a surplus of revenue over expenditure amounting to £2,105,439. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1904–05 :—

| — | Imperial. | Provincial and Local. | England (sterling converted at £1 = Rs. 15). | TOTAL. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts). | 22,858,577 | 41,530 | 230 | 22,900,337 |
| Guaranteed companies—(Net traffic receipts). | 1,074,814 | — | — | 1,074,814 |
| Subsidised companies—(Repayment of advances of interest). | 37,789 | — | 9,525 | 47,314 |
| TOTAL - - | 23,971,180 | 41,530 | 9,755 | 24,022,465 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses - - | 11,270,568 | 24,869 | — | 11,295,437 |
| Interest on debt - - | 3,466,858 | — | 1,141,439 | 4,608,297 |
| Annuities in the purchase of railways. | — | — | 3,009,333 | 3,009,333 |
| Interest chargeable against companies on advances. | 214,339 | 4,101 | 237,307 | 455,747 |
| Interest on capital deposited by companies. | 25,449 | 4,568 | 1,235,972 | 1,265,989 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision. | 120,117 | — | — | 120,117 |
| Interest - - - - - | 18,476 | — | 1,045,143 | 1,063,619 |
| Subsidised companies— | | | | |
| Land, &c. - - - - | 49,972 | 264 | — | 50,236 |
| Miscellaneous railway expenditure - | 42,544 | 5,707 | — | 48,251 |
| TOTAL - - | 15,208,323 | 39,509 | 6,669,194 | 21,917,026 |
| | | Net gain - - £ | | 2,105,439 |

In the figures of expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind, Punjab, and Delhi, and Great Indian Peninsula railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as head-quarters establishment and surveys.

Statistical results of working.

2. The statistical results of working of the various classes of railways during 1905 are given in the following table. The aggregate net earnings of all Indian railways, including steam-boat service and suspense items,

but excluding other indirect charges, amounted to 6·00 per cent. of the total capital outlay on open lines, the same as in the previous year:— RAILWAYS.

| Class. | Length of Line Open on the 31st December 1905. | Total Capital Outlay on Open Lines to the 31st December 1905, including Steamboat and Suspense. | Total Number of Passengers carried. | Total Weight of Goods carried. | Gross Earnings, including Steam-boat Service. | Working Expenses, including Steam-boat Service. | Net Earnings, including Steam-boat Service. | Percentage of net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *5′ 6″ Gauge.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by companies | 6,823·86 | 85,957,867 | 61,800,400 | 23,237,000 | 11,092,267 | 4,779,667 | 6,312,600 | |
| State lines worked by the State | 5,149·61 | 53,106,600 | 47,315,400 | 10,196,000 | 5,662,133 | 2,992,467 | 2,669,666 | |
| Companies' lines guaranteed under old contracts. | 1,408·36 | 17,672,800 | 32,172,900 | 3,409,000 | 2,175,000 | 1,088,067 | 1,086,933 | |
| Companies' lines guaranteed under modern contracts. | 32·04 | 194,800 | 272,300 | 68,000 | 20,933 | 10,467 | 10,466 | |
| Assisted companies' lines | 920·06 | 4,603,933 | 5,887,200 | 1,150,000 | 506,533 | 240,933 | 265,600 | |
| Lines owned by Native States and worked by companies. | 723·04 | 4,991,200 | 3,349,200 | 1,355,000 | 420,467 | 150,266 | 270,201 | |
| Lines owned by Native States and worked by State railway agency. | 201·70 | 786,400 | 2,538,500 | 439,000 | 114,534 | 60,600 | 53,934 | |
| TOTAL FOR 1905 | 15,258·67 | 167,313,600 | 153,335,900 | 39,854,000 | 19,991,867 | 9,322,467 | 10,669,400 | 6·38 |
| TOTAL FOR 1904* | 14,950·66 | 164,095,267 | 138,198,100 | 37,313,000 | 19,548,533 | 8,916,867 | 10,631,666 | 6·48 |
| *3′ 3⅜″ Gauge.* | | | | | | | | |
| State lines worked by companies | 7,589·23 | 46,926,267 | 60,173,100 | 9,866,000 | 5,181,467 | 2,787,534 | 2,393,933 | |
| State lines worked by the State | 737·03 | 4,657,267 | 5,846,500 | 1,100,000 | 582,400 | 271,133 | 311,267 | |
| District Boards' lines | 99·46 | 316,000 | 1,665,000 | 368,000 | 39,067 | 21,133 | 17,934 | |
| Assisted companies' lines | 1,373·94 | 6,456,200 | 16,366,800 | 2,521,000 | 607,133 | 281,467 | 325,666 | |
| Lines owned by Native States and worked by companies. | 756·47 | 3,135,933 | 4,288,100 | 760,000 | 298,933 | 165,333 | 133,600 | |
| Lines owned and worked by Native States. | 1,321·63 | 3,087,133 | 3,895,600 | 676,000 | 362,333 | 160,933 | 201,400 | |
| Lines in foreign territory | 73·60 | 1,005,267 | 725,000 | 223,000 | 35,000 | 21,000 | 14,000 | |
| TOTAL FOR 1905 | 11,951·36 | 65,584,067 | 92,960,100 | 15,514,000 | 7,106,333 | 3,708,533 | 3,397,800 | 5·18 |
| TOTAL FOR 1904* | 11,537·81 | 64,304,267 | 84,673,900 | 14,254,000 | 6,616,000 | 3,441,933 | 3,174,067 | 4·94 |
| *Special (2′ 6″ and 2′ 0″) Gauge.* | | | | | | | | |
| State lines worked by companies | 312·60 | 947,400 | 35,000† | 2,000† | 39,400 | 30,267 | 9,133 | |
| State lines worked by the State | 30·25 | 60,667 | 165,300 | 9,000 | 5,133 | 5,067 | 66 | |
| Assisted companies' lines | 300·13 | 1,818,867 | 2,606,400 | 245,000 | 181,667 | 95,600 | 86,067 | |
| Unassisted companies lines | 33·27 | 69,466 | 417,000 | 22,000 | 5,800 | 4,333 | 1,467 | |
| Lines owned by Native States and worked by companies. | 372·42 | 694,533 | 1,030,500 | 132,000 | 43,000 | 25,333 | 17,667 | |
| Lines owned by Native States and worked by State railway agency. | 33·09 | 98,400 | 179,800 | 77,000 | 10,067 | 4,067 | 6,000 | |
| Lines owned and worked by Native States. | 11·86 | 28,400 | 2,700 | 7,000 | 1,466 | 400 | 1,066 | |
| TOTAL FOR 1905‡ | 1,094·13 | 3,717,733 | 4,436,700 | 494,000 | 286,533 | 165,067 | 121,466 | 3·27 |
| TOTAL FOR 1904 * and ‡ | 1,068·57 | 3,479,866 | 4,224,900 | 484,000 | 268,600 | 157,867 | 110,733 | 3·17 |
| TOTAL OF ALL RAILWAYS FOR 1905 ‡. | 28,304·16 | 236,615,400 | 250,732,700 | 55,862,000 | 27,384,733 | 13,196,067 | 14,188,666 | 6·00 |
| TOTAL OF ALL RAILWAYS FOR 1904 * and ‡. | 27,557·04 | 231,879,400 | 227,096,900 | 52,051,000 | 26,433,133 | 12,516,667 | 13,916,466 | 6·00 |

* As corrected from later information.

† The figures for Jubbulpore-Gondia extension and Raipur-Dhamtari Railway are included with those of the Bengal-Nagpur Railway, 5′ 6″ gauge.

‡ Excluding the Thaton-Duyinzaik Light Railway.

It will be observed that, with an increase of 747·12 miles or 2·71 per cent. in the open mileage, as compared with 1904, the gross earnings and working expenses increased by £951,600 or 3·60 per cent., and £679,400 or 5·43 per cent., respectively, resulting in a gain of £272,200 or 1·96 per cent. in the net earnings.

There was an increase of 23,635,800 in the number of passengers and of 3,811,000 tons in the weight of goods carried as compared with the previous year.

RAILWAYS.

Guaranteed railway transactions.

3. The transactions of the original guaranteed lines are shown in the following table, in which the rupee is converted into sterling at contract rates :—

| RAILWAYS. | Total Capital Outlay. | Net Revenue. | Guaranteed Interest. | Interest in Excess of Revenue. | Net Revenue in Excess of Interest. | Surplus Profits. |
|---|---|---|---|---|---|---|
| HALF-YEAR ENDED THE 30TH JUNE 1905. | £ | £ | £ | £ | £ | £ |
| Bombay, Baroda, and Central India. | 10,963,721 | 419,998 | 245,682 | — | 174,316 | 175,039* |
| Madras - - - | 12,435,477 | 270,887 | 288,208 | 17,321 | — | — |
| Total - | 23,399,198 | 690,885 | 533,890 | — | 156,995 | 175,039 |
| HALF-YEAR ENDED THE 31ST DECEMBER 1905. | | | | | | |
| Bombay, Baroda, and Central India. | 11,032,671 | 274,612 | 246,286 | — | 28,326 | 28,326 |
| Madras - | 12,499,638 | 268,507 | 292,076 | 23,569 | — | — |
| Total - | 23,532,309 | 543,119 | 538,362 | — | 4,757 | 28,326 |
| Total for the year 1905. | 23,532,309 | 1,234,004 | 1,072,252 | — | 161,752 | 203,365 |
| Total for the year 1904. | 23,313,664 | 1,203,643 | 1,067,179 | — | 136,464 | 144,688† |

* The excess of "Surplus profits" over "Net revenue in excess of interest" is due to the exclusion of expenditure on the Viramgam-Wadhwan section from the surplus profits account.

† Passed provisionally.

Mileage opened.

4. The total railway mileage on each gauge opened during the year and the sections opened were as follows :—

| | Miles. | Miles. | Miles. |
|---|---|---|---|
| *5′ 6″ Gauge*— | | | |
| Agra-Delhi Chord— | | | |
| Delhi Sadr to Delhi Junction - - - - - | — | 0·43 | |
| Bengal Nagpur— | | | |
| Mohuda to Malkera - - - - - | — | 5·70 | |
| Eastern Bengal State— | | | |
| Ranaghat to Lalgola - - - - - | — | 94·75 | |
| East Indian— | | | |
| Etmadpur Chord - - - - - | 1·11 | | |
| Shikohabad to Bhongaon - - - - | 38·34 | | |
| | ——— | 39·45 | |
| North Western State— | | | |
| Spezand Junction to Nushki - - - - | — | 83·29 | |
| Indian Midland— | | | |
| Cawnpore Generalganj line - - - - | 0·50 | | |
| Central of Agra Road station to point of junction with the Balinganj branch - - - - - | 0·27 | | |
| Portion of the Balinganj branch - - - - | 2·10 | | |
| | ——— | 2·87 | |
| Oudh and Rohilkhand State— | | | |
| Phaphamau to Allahabad - - - - | — | 7·00 | |
| Southern Punjab— | | | |
| Ludhiana to Ferozepore - - - - | — | 75·90 | |
| | | ——— | 309·39 |
| *3′ 3⅜″ Gauge*— | | | |
| Bellary-Rayadrug - - - - - - | — | 33·25 | |
| Bengal and North-Western— | | | |
| Uska Bazar to Barhni - - - - - | — | 31·00 | |
| Eastern Bengal State— | | | |
| Bonarpara to Kaunia - - - - - - | — | 44·47 | |
| Hospet-Kottur - - - - - - - | — | 43·06 | |
| Jaipur— | | | |
| Sanganer to Nawai - - - - - | — | 32·25 | |
| Jodhpur— | | | |
| Merta Road to Merta City - - - - | — | 8·95 | |
| Rajputana-Malwa— | | | |
| Phulera to Narnaul - - - - - - | — | 100·53 | |
| Tirhoot— | | | |
| Sakri to Jaynagar - - - - - - | — | 30·47 | |
| | | ——— | 323·98 |
| Carried over - - - - - - | | | 633·37 |

| | Miles. | Miles. | Miles. | Railways. |
|---|---|---|---|---|
| Brought forward - | — | — | 633·37 | |
| *2′ 6″ Gauge—* | | | | |
| Baraset-Basirhat light - - - - - - | — | 26·06 | | |
| Barsi Light— | | | | |
| Barsi Town to Kuslamb - - - - - | — | 7·00 | | |
| Cutch— | | | | |
| Anjar to Tuna - - - - - - | — | 11·86 | | |
| Jubbulpore-Gondia Extension— | | | | |
| Burgi to Jubbulpore - - - - - | — | 16·96 | | |
| Mourbhanj— | | | | |
| Rupsa to Baripada - - - - - | — | 32·41 | | |
| Tirupattur-Krishnagiri - - - - - | — | 25·43 | | |
| | | | 119·72 | |
| TOTAL - - - - | | | 753·09 | |

5. The additional lengths sanctioned for construction were :—

| | Miles. | Miles. | Miles. | Mileage sanctioned. |
|---|---|---|---|---|
| *5′ 6″ Gauge—* | | | | |
| Agra-Delhi Chord— | | | | |
| Kosi to Sanket - - - - - - | — | 8·00 | | |
| Amritsar-Patti - - - - - - | — | 26·85 | | |
| East Indian— | | | | |
| Agra direct access - - - - - | 1·75 | | | |
| Bhagalpur to Bausi - - - - - | 31·04 | | | |
| Borachuck to Sodepur - - - - - | 4·50 | | | |
| Etmadpur Chord - - - - - | 1·11 | | | |
| Hooghly to Katwa - - - - - | 65·20 | | | |
| Chord line between East Indian and Oudh and Rohilkhand State Railways near Moghal Sari - - | 1·19 | | | |
| | | 104·79 | | |
| Great Indian Peninsula— | | | | |
| Kurla to Mazagaon - - - - - | 6·51 | | | |
| Mahim link - - - - - - | 1·32 | | | |
| | | 7·83 | | |
| Nagda-Muttra— | | | | |
| Crossing of the Chambal river to Muttra - - | — | 202·46 | | |
| North-Western State— | | | | |
| Kacha Garhi to Mile 23 - - - - - | — | 23·00 | | |
| | | | 372·93 | |
| *3′ 3⅜″ Gauge—* | | | | |
| Assam-Bengal— | | | | |
| Akhaura to Ashuganj - - - - - | — | 19·00 | | |
| Burma— | | | | |
| Thamaing to Malagaon - - - - | — | 6·70 | | |
| Dibru-Sadiya— | | | | |
| Talap to Shaikwaghat - - - - - | — | 8·50 | | |
| Eastern Bengal State— | | | | |
| Forbesganj to the Nepal Frontier - - - | — | 6·50 | | |
| Gaekwar's Mehsana— | | | | |
| Chausama to Bechraji - - - - - | 17·27 | | | |
| Manund Road to Harij - - - - | 21·20 | | | |
| | | 38·47 | | |
| Morvi— | | | | |
| Stone Quarry branch - - - - - | — | 2·75 | | |
| Sangli— | | | | |
| Miraj to Sangli Town - - - - - | — | 4·00 | | |
| Southern Mahratta— | | | | |
| Bezwada to Masulipatam - - - - - | — | 49·50 | | |
| Tirhoot— | | | | |
| Bhagalpur to Bhagalpur Ghat - - - - | — | 4·29 | | |
| | | | 139·71 | |
| *2′ 6″ Gauge—* | | | | |
| Cutch— | | | | |
| Anjar to Bhuj - - - - - - | — | 25·38 | | |
| Dholpur-Bari - - - - - - | — | 19·25 | | |
| Purulia-Ranchi - - - - - - | — | 72·26 | | |
| | | | 116·89 | |
| TOTAL - - - - | | | 629·53 | |

RAILWAYS. Mileage under construction.

6. The total mileage under construction or sanctioned for construction at the close of the year, *i.e.*, on the 31st December 1905, was as follows :—

| | Miles. | Miles. |
|---|---|---|
| 5′ 6″ *Gauge* — | | |
| State lines worked by companies | 544·30 | |
| State lines worked by the State | 594·14 | |
| Assisted companies' lines | 104·05 | |
| Lines owned by Native States and worked by companies | 1·39 | |
| | | 1,244·78 |
| 3′ 3⅜″ *Gauge* — | | |
| State lines worked by companies | 506·63 | |
| State lines worked by the State | 263·12 | |
| District Boards' lines | 5·53 | |
| Assisted companies' lines | 273·44 | |
| Lines owned by Native States and worked by companies | 83·07 | |
| Lines owned and worked by Native States | 2·75 | |
| | | 1,134·54 |
| *Special* (2′ 6″ *and* 2′ 0″) *Gauges* — | | |
| State lines worked by companies | 364·28 | |
| State lines worked by the State | 6·80 | |
| Assisted companies' lines | 313·16 | |
| Lines owned by Native States and worked by companies | 68·60 | |
| Lines owned by Native States and worked by State railway agency | 22·02 | |
| Lines owned and worked by Native States | 44·63 | |
| | | 819·49 |
| TOTAL | | 3,198·81 |

Important works completed and in progress.

7. The following gives a brief abstract of the important works completed and in progress during the year 1905 :—

*Bengal-Nagpur Railway System.*—With the exception of a short length between Deulti and Machada, the work of doubling the line between Bauria and Khargpur, was completed and the second line was opened throughout for traffic in 1905. Progress continues in the construction of the 5′ 6″ gauge line from Bhojudih to Hariharpur, 26·96 miles, and the Chhindwara-Kursadeyi section, 16 miles, of the 2′ 6″ gauge Pench Valley Railway. The renewal of the girders (7 spans of 170 feet) of the Kanhan bridge near Kamptee has also been completed. The remaining sections of the Satpura Railway from Burgi to Howbagh Jabalpur and from Howbagh Jabalpur to Jubbulpore, 16·96 miles, and the Mourbhanj Railway, 32·41 miles, all on the 2′ 6″ gauge, were opened for traffic on the 7th April, 15th September, and 20th January 1905, respectively.

The construction was commenced of the 2′ 6″ gauge extensions from Gondia station to Chanda, 148·65 miles; with a branch from Pauni (Brahmapuri) to Nagpur, 63·75 miles ; also of the line on the same gauge from Ranchi to Purulia, 72·26 miles.

The line between Naupada and Vizianagram on the East Coast section was damaged considerably by a cyclonic storm of exceptional violence in September 1905. Through communication was resumed after a fortnight.

*Bombay, Baroda, and Central India Railway.*—The work of extending the Anand-Cambay branch to Cambay Bandar has been practically completed, and that of extending and raising the south abutment groyne of the Nerbudda bridge protective work is in progress.

The Ranip bridge on the Ahmedabad-Viramgam section and the Vokla bridge on the Patri branch are in course of being built.

The Narnaul-Phulera section, 100·53 miles, of the Rewari-Phulera Chord, Rajputana-Malwa Railway, was opened for traffic on the 18th May 1905, and work is in progress on a diversion or loop through the new Muttra junction station—the short cut, or deltaic connection with the Bindraban branch and the metre gauge junction.

The first section of the Jaipur-Siwai-Madhopur Railway, from Sanganer to Nawai, 32·25 miles, was completed and opened for traffic on the 10th November 1905. The remaining portion of the railway, 40·60 miles, is expected to be opened for traffic by June 1907.

*Eastern Bengal State Railway System.*—The Ranaghat-Jiaganj and Jiaganj-Bhagwangola sections of the Murshidabad branch, 88·50 miles,

which include the bridges across the Churni (3 spans of 120 feet skew), near Ranaghat and across the Jellinghee (3 spans of 120 feet and 1 span of 25 feet with 35 feet headway) at Krishnagar, were opened for traffic on the 15th April and 15th May 1905, respectively, and the length, 6·25 miles, from Bhagwangola to Lalgola, on the 10th November 1905. The remaining portion, Lalgola to Lalgola Ghat, 3·10 miles, is expected to be ready for opening to traffic by the middle of 1906.

The Kaunia-Bonarpara 3′ $3\frac{3}{8}$″ gauge extension, 44·47 miles, which is practically a chord connecting the Assam section of the system with the Brahmaputra-Sultanpur branch of the Northern section, was opened for traffic on the 1st July 1905.

The Gauhati extension from Golokganj station to Kokrajhar, 35·37 miles, is expected to be opened for traffic in February 1906, and the remaining portion about the middle of 1907.

The construction of a 3′ $3\frac{3}{8}$″ gauge branch from Forbesganj to Nepal frontier, 6·50 miles, is in hand.

On the Katihar-Godagari extension nearly all the land has been acquired up to the 64th mile from Katihar, and the earthwork commenced. Arrangements have also been made to start work on the bridges across the rivers Kunkur (2 spans of 100 feet and 8 spans of 60 feet girders) at mile 15·73, Mohananda (2 spans of 100 feet and 6 spans of 60 feet girders) at mile 42·73, Tangan (1 span of 100 feet, 4 spans of 60 feet, and 3 spans of 40 feet girders) at mile 62·16, and Purnabhaba (2 spans of 100 feet and 11 spans of 40 feet girders) at mile 69·03.

The re-modelling of the station yard at and approaches to Parbatipur junction station on the Northern section is still in hand.

*East Indian Railway.*—Considerable progress has been made on the Gya-Barakar Railway from Manpur to Dhanbaid, including the Nagri-Kusunda connection, 123·08 miles; on the second line between Dhanbaid and Barakar, 25·09 miles; on the Khurja-Hapur branch, 39·49 miles; and on the Ondal-Sainthia Chord, 44·93 miles, all which are expected to be opened for traffic during 1906.

The Shikohabad-Mainpuri section of the Shikohabad-Furrakhabad branch, 29·71 miles, was opened for traffic in March 1905; the remaining portion, 36·11 miles, was opened in January 1906.

The construction was commenced of the Hooghly-Katwa and the Bhagalpur-Bausi Railways, as also of the extension to afford direct access into Agra.

At Howrah, the new passenger station, the reconstruction of Buckland bridge, the riverside goods warehouse, the filling up of the Boat Dock, and the transfer sidings for goods between the East Indian and the Bengal-Nagpur Railways are in hand. The works in connection with the re-modelling of the Allahabad station yard for the entrance of the Allahabad-Fyzabad Railway, also of the Delhi station, and of the second down line between Raneegunge and Asansol, are in progress.

*Great Indian Peninsula Railway System.*—The remaining portion of the Agra-Delhi Chord Railway, from Delhi Sadr to Delhi Junction, 0·43 mile, was opened for traffic during the year. The Agra Road station and the line therefrom to the point of junction with the Agra-Delhi Chord Railway was completed and opened for traffic and now forms part of the main line from Agra to Delhi, and considerable progress was made with additional works in the Agra Road station yard. Work from the point of junction with the Agra-Delhi Chord to the Goods Depôt at Palinganj (Agra City), and at the Goods Depôt itself, is in progress.

The new up double line between Khandwa and Itarsi was opened for passenger traffic on the 16th October 1905, and the quadrupled line between Byculla Junction and Currey Road was brought into use on the 4th December 1905.

Construction work on the Warora-Bellapur extension, 37·59 miles, is in progress.

Considerable progress has been made with the work on the line from Kirkee station to the Arsenal, and on the branch to the Small Arms and Ammunition Factory.

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The work in connection with the strengthening of bridge girders is in hand, as also the reconstruction of the Godavari bridge at mile 120, North-East line, and the strengthening of the Manair bridge. The foundations for the new bridge at Mumbra station have been completed and the girder erection is in progress.

The extension of the Gwalior Light Railway from Sabalgarh to Sheopur, about 68·66 miles, is in hand.

*Madras Railway System.*—The Tirupattur-Krishnagiri Railway, 25·43 miles, was opened for traffic in September 1905. Of the other lines under construction by the Madras Railway Company, the Morappur-Dharmapuri Railway, 18·36 miles, was opened in January 1906; and it is expected that the first 50 miles of the Azhikhal-Mangalore Railway, 77·27 miles, will be opened in the middle of 1906, and that the whole line will be ready early in 1907.

Construction is in progress on the extension of the Nilgiri Railway from Coonoor to Ootacamund, 11·50 miles.

*Nagda-Muttra Railway.*—The works on the Southern section, Nagda to the Chambal river, 141·52 miles, are well advanced. Plate-laying will be started early in 1906, and it is expected that the first 50 miles will be opened for traffic by the middle of that year. The laying of the foundations of the bridge over the Chambal river (14 spans of 100 feet, 2 spans of 60 feet, and 1 span of 40 feet), which is the most important work on this section, is in progress. Very little work has been done on the Northern section, Kotah (crossing of the Chambal river) to Muttra, 202·46 miles.

*North-Western Railway.*—The construction on the 5′ 6″ gauge of the Quetta-Nushki Railway (Spezand Junction to Nushki) 83·29 miles, was completed, and the line was opened for traffic on the 15th November 1905. The extension of the Southern Punjab Railway between Ferozepur Cantonment and Ludhiana, 75·90 miles, on the 5′ 6″ gauge, was opened for traffic on 10th June 1905. The rest of the extension, Ferozepur City to MacLeod Ganj Road, 78·07 miles, has been inspected by the Government Inspector and will be opened shortly. The construction of the southern section of the Jech-Doab Railway, Sargodha to Shorkot Road, 103·14 miles, on the 5′ 6″ gauge, has been going on throughout the year. With the exception of the girder erection, the bridge over the river Chenab at Alipur has been finished and the line will be ready shortly for opening to traffic. The construction of the Shahdara-Sangla Railway, 55·17 miles, on the 5′ 6″ gauge, has made good progress and is nearly completed.

The construction of the Amritsar-Patti Railway, 26·85 miles, on the 5′ 6″ gauge, was started during the year and the work is well in hand. The construction of the Loi-Shilman Railway, 23 miles, on the 5′ 6″ gauge, was commenced. Work was started on the section from the junction point with the North-Western Railway to the mouth of Kabul river gorge, and the re-survey of the remainder is in hand. The construction of the double line, 32·30 miles, between Lahore and Amritsar has been completed, and the line will be opened for traffic shortly. The doubling of the line between Samasata and Reti, 138·50 miles, and between Reti and Rohri, 70 miles, was started during the year and has made good progress.

One wing of the Central Offices at Lahore was completed and the second wing is under construction. The re-modelling and interlocking of Bhatinda station yard were completed during the year.

The work of construction of a bridge over the River Indus at Khushalgarh is well in hand, and the approaches of the bridge have been practically finished.

*Oudh and Rohilkhand Railway.*—The section of the Allahabad-Fyzabad branch from Phaphamau to Allahabad, 7 miles, and the permanent bridge (15 spans of 200 feet) over the Ganges river at Allahabad were opened for traffic on the 1st January and the 15th June 1905 respectively.

The work of construction of the Allahabad-Jaunpur Railway from Phaphamau to Zafarabad, 57·50 miles, with the exception of three major bridges, has been practically finished and half the permanent-way laid. It is expected that the line between Phaphamau and Mariahu, 48 miles, will be opened for traffic by the middle of 1906, and the remainder by March 1907.

*Assam-Bengal Railway.*—The work on the third jetty at the Chittagong Port is progressing well, and the necessary arrangements have been made to start work on the Akhaura-Ashuganj branch, 19 miles.

*Bengal and North-Western Railway System.*—Of the lines under construction on the Company's section, the Uska Bazar-Tulsipur extension from Uska Bazar to Barhni, 31 miles, was opened for traffic on the 5th January 1905, and the remaining portion, Barhni to Tulsipur, including Jarwa branch, 35·10 miles, is expected to be opened shortly. Good progress has been made on the Gorakhpur-Bagaha extension, 60·94 miles, and the line is expected to be ready for opening throughout by the beginning of 1907. The construction of the extensions from Savan to Thawe, 17 miles, and Daronda to Maharajgunj, 3·90 miles, has been taken in hand, but little progress has been made owing to delay in the acquisition of land.

A new entrance from the Balrampur branch into Gonda station, about 3 miles in length, was opened for traffic on the 22nd July 1905. The renewal of the Ganges-Gogra Doab lines with 50 lb. rails is in progress.

On the Tirhoot section, the Sakri-Jaynagar extension, 30·47 miles, was opened for traffic on the 14th January 1905. Work on the Bettiah-Bagaha extension, 49·35 miles, and on the Narkatiaganj-Bhikna Thoree branch, 21·50 miles, is well advanced. It was expected that the section between Bettiah and Narkatiaganj, 22·75 miles, with the branch to Bhikna Thoree, would be opened for traffic by the end of January 1906.

The works on the extensions from Bairagnia to Narkatiaganj, 58·05 miles, and Mansi to Bhaptiahi, 60·37 miles, and on the Saharsa-Budham Ghat branch, 18·61 miles, though progressing well, were somewhat retarded owing to delay in the acquisition of land. Endeavour is, however, being made to push on the works vigorously and to open the lines by the end of 1906–07. The works on the branch from Bhagalpur Ghat to the East Indian Railway extension, 4·29 miles, have also been delayed owing to difficulty in obtaining land. Materials have, however, all been collected, and the works are being pushed on vigorously. It is expected that the branch as far as the Kacheri station will be opened by the end of January 1906. The siding from Silout station to Ottur Factory, about 5 miles, sanctioned in July 1905, was opened for goods traffic on the 8th December 1905. A new bridge over the Bolan river (3 spans of 80 feet) has been constructed to replace the 3 spans of 60 feet pin girder bridge. The construction of the new Boor Gundak bridge at Samastipur is in progress. The doubling of the line between Barauni Junction and Bachhwara is nearly completed, and is expected to be opened for traffic shortly. The re-construction of the bridges and raising of the main bank of the Sagauli-Raxaul branch has been completed.

*Bengal-Dooars Railway.*—The special protection work at the larger bridges, and the Khanabarti deviation which was rendered necessary by the irrigation work, including the bridge of 3 spans of 40 feet girders, have been completed.

*Burma Railways.*—On the main line 28 miles of 41¼ lb. steel track were relaid with 50 lb. steel rails. The works on the Pegu-Martaban extension, 121·27 miles, and the Henzada-Kyangin extension, 65·66 miles, are advancing. Both the extensions are expected to be opened by April 1907. A reconnaissance for a railway on the 2′ 6″ gauge from Bhamo to Tengyüeh, 124 miles, was carried out during the year. The results were considered of so encouraging a nature as to warrant the undertaking of a detailed survey, which is now in progress.

*Jodhpur Railway.*—The branch from Merta Road to Merta City, 8·95 miles, was opened for traffic on the 17th January 1905.

*Rohilkund and Kumaon Railway System.*—The Company relaid with 50 lb. section rails 30 miles of its own, and 21 miles of the State line, which before were laid with 41¼ lb. rails.

Of the lines under construction by the Company, the Bareilly-Soron extension is expected to be opened for traffic during January 1906. The bridge over the Ganges will be completed during March 1906. About three-

RAILWAYS.

fourths of the earthwork on the Lalkua-Kashipur and Moradabad-Ramnagar extensions has been completed.

*South Indian Railway System.*—The construction of the Rameswaram extension, 11·83 miles, which was sanctioned by the Secretary of State in June 1905, is in progress.

*Southern Mahratta Railway System.*—The Hospet-Kottur and Bellary-Rayadrug famine feeder lines were completed, and opened for traffic on the 1st April and the 1st July 1905, respectively. The construction of the Bezwada-Masulipatam line, 49·50 miles, has been commenced, and arrangements are being made to start work on a branch line from Miraj to Sangli, about 4 miles, funds for which have been provided by the Sangli Durbar.

*Baraset-Basirhat Light Railway.*—This railway, 26·06 miles, on the 2′ 6″ gauge, was opened for traffic on the 1st February 1905.

*Barsi Light Railway.*—The extensions under construction from Kuslamb to Tadwala, 19·70 miles, and from Barsi Road to Pandharpur, 30·67 miles, are expected to be opened for traffic on the 1st April and 1st November 1906, respectively.

*Cutch State Railway.*—This line from Tuna to Anjar, 11·86 miles, was completed and opened for traffic during the year. The extension from Anjar to Bhuj, 25·38 miles, is under construction.

*Morvi Railway.*—The work of converting the Wadhwan-Rajkot section from the 2′ 6″ to the metre gauge was completed, and the new line, 73·94 miles, opened for traffic on the 3rd March 1905.

*Shahdara-Saharanpur Light Railway.*—The detailed survey of this line was completed in February 1905. All the land required has since been acquired, with the exception of that portion of the alignment, at the entrance to Saharanpur, extending from mile 90 to 93·54. The suitability of the selected route has been inquired into, and arrangements are being made to commence work all through, except on the Baraut-Meerut branch which is not being taken in hand at present.

*Tarakeshwar-Magra Light Railway.*—On the 29th July 1905 the line was breached by heavy floods and traffic stopped in several places between Tarkessur and Bhastara. Through communication was restored from the 22nd August 1905.

*Jorhat State Railway.*—A breach caused by floods in August 1905 on the Gosaigaon-Patiagaon section of this railway was repaired, and through communication between the river terminus and Jorhat stations restored in December.

*Matheran Light Railway.*—This line is expected to be opened for traffic about the middle of 1906.

**Principal events.**

8. The following were the principal events in 1905 :—

*General.*—On the 4th March 1905 through direct connection was established between Wadhwan Junction and Rajkot by the conversion of that portion of the Morvi Railway from the 2′ 6″ to the metre gauge.

Construction work on the Dwara-Therria Light Railway, which was suspended in June 1904 for want of funds, continues at a standstill.

On and from the 1st January 1905 the working of the Mourbhanj Light Railway was taken over by the Bengal-Nagpur Railway.

Through booking of goods and passenger traffic between the Tarakeshwar-Magra Light Railway and the Calcutta Steam Navigation Company's Steamer Service, *viâ* Tribeni, was introduced from January 1905.

Notice was given to the Bengal Central Railway Company of the termination, with effect from the 1st July 1905, of the Company's contract with the Secretary of State for India dated the 5th January 1887. The line was purchased by the State and merged in the Eastern Bengal State Railway system with effect from the afternoon of the 30th June 1905.

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Owing to the heavy floods near Sabarmati and south of Ahmedabad, the Bombay, Baroda, and Central India Railway line was breached in several places and two girder bridges were destroyed. A diversion near Sabarmati was rendered necessary.

The Moghal Sarai-Gya branch of the East Indian Railway was seriously breached in several places, and many of the girder bridges damaged by heavy rainfall and the overflowing of the Karamnassa river in September 1905. Traffic was wholly suspended, and the line was not re-opened for ordinary through traffic until the 15th November 1905. The main line between Gahmar and Dildarnagar stations was also affected by the overflowing of the Karamnassa river in September 1905, resulting in the traffic being worked only during daylight for three days.

On the Eastern Bengal State Railway a wagon ferry service was established on the Ganges between Damukdia and Sara Ghats in February 1905.

Notice was given to the Bombay, Baroda, and Central India Railway Company of the termination, with effect from the 1st January 1906, of the Company's contracts with the Secretary of State for India. It is proposed, after its purchase by the State, to make the railway over to a re-constituted Company to work, and in the interval between the purchase of the line and the introduction of new arrangements the Company have agreed to work the line on behalf of the Secretary of State on the terms and conditions which may ultimately be agreed to as part of the new arrangements.

The Noakhali (Bengal) Railway Company suggested the transfer of their line to the Assam-Bengal Railway. The purchase of the line by the State as from 1st January 1906 has accordingly been agreed to, and arrangements have been made to incorporate it with the Assam-Bengal Railway.

The Railway Board, after duly considering the representations received from various firms of manufacturing engineers in India asking that they might be given an opportunity of tendering for the construction of wagon frames and bodies in this country, have decided that, for a period of three years, tenders should be called for publicly in India for the supply of frames and bodies of 25 per cent. of the goods stock sanctioned for State railways, the requisite wheels, axles, springs, and draw bars to complete the wagons being indented for from England and supplied by the railway administration to the firm whose tender is accepted.

*Contracts executed for the Construction and Working of Railways.*—Approval was conveyed on the 20th December 1904 to an agreement for the working by the Southern Mahratta Railway Company of the Bellary-Rayadrug and Hospet-Kottur famine feeder lines.

On the 6th February 1905 the Government of India sanctioned the purchase of the Chabra section of the Bina-Goona-Baran Railway by the Gwalior Durbar from the Tonk Durbar, on the condition that the Gwalior Durbar agreed to abide by the terms under which that section of the line was then worked by the Great Indian Peninsula Railway.

On the 10th March 1905 approval was conveyed to a memorandum of terms for the working by the Bengal-Nagpur Railway Company of the Mourbhanj Light Railway for the period 1st January 1905 to 31st December 1905, and thereafter from year to year until the agreement is terminated by notice.

An indenture was executed on the 4th October 1905 between the Secretary of State and the Southern Punjab Railway Company for the construction of the MacLeod Ganj-Ferozepore-Ludhiana Extension Railway.

In connection with the inauguration by Messrs. Frank C. Strick & Co., of London, of a new line of steamers to the Port of Mormugoa, an agreement was executed between that Company and the Southern Mahratta Railway Company for the through booking of traffic between British and Continental Ports and stations on the Southern Mahratta Railway.

On the 4th December 1905 an indenture was executed with the Barsi Light Railway Company making certain modifications in the Company's contract of 20th August 1902 for the construction and working of the

RAILWAYS. Pandharpur and Tadwalla extensions, and providing for the issue of Debenture Stock.

*Construction of Sidings into Private Premises.*—A revised form of agreement for the extension of railways into private premises was issued in July 1905 for adoption on State railways, and as a general guide to other railways in preparing similar agreements. Under the revised terms the charge of 6 per cent. per annum, previously made by railways to cover interest, maintenance, and depreciation on the cost of all permanent-way materials, &c. provided, laid, and maintained by the railway administration, and of all works done in connection with such sidings at the expense of the railway, has been relinquished.

*Constitution of the Railway Board.*—The Chairman and Members of the Railway Board assumed office in March 1905, and took over most of the duties of the Railway Branch of the Public Works Department Secretariat of the Government of India, which was then abolished.

The duties assigned to the Railway Board are of two kinds. Its deliberative functions include the preparation of the railway programme of expenditure, and the discussion of the greater questions of railway policy and economy affecting all lines, the final authority for decisions in regard to which is still retained by the Government of India and the Secretary of State in Council. Its administrative duties include the construction of new lines by State agency, the carrying out of new works on open lines, the improvement of railway management with regard both to economy and public convenience, the arrangements for through traffic, the settlement of disputes between lines, the control and promotion of the staff on State lines, and general control over the working and expenditure of Companies' lines. The final authority in regard to these duties has been delegated, subject to restrictions, to the Railway Board.

The Board is provided with a Secretary and the necessary establishment for the conduct of its business, and the orders issued by the Railway Board are accepted as orders issued by the Government of India.

*Indian Railway Conference Association.*—A special meeting of the Indian Railway Conference Association was held in Simla from 31st July to 11th August 1905, to consider the revised general rules for working open lines of railway in India, and other matters.

*Measures for the Comfort and Convenience of 3rd Class Passengers.*—This matter has received the special consideration of the Railway Board, who have drawn the attention of the several Railway Administrations to the urgent necessity for provision of (1) facilities for passengers to obtain their tickets a longer time before the departure of the trains than they are at present able to do; (2) facilities for examining tickets of 3rd class passengers, both at starting and road-side stations, as will enable the passengers to have proper access to the platforms and take their seats in the train without the crush which now too frequently occurs; and (3) carriage accommodation for 3rd class passengers, to prevent the overcrowding which at present is much too general.

*Standard Time.*—With effect from the 1st July 1905, a standard time, which in India is exactly 5½ hours in advance of Greenwich and 9 minutes in advance of Madras time, and in Burma 6½ hours ahead of Greenwich and 5 minutes 23 seconds earlier than Rangoon time, has been adopted on the railways in India and Burma, other than on small local lines where the change would be inconvenient.

*Rates for Coal.*—In August 1905 the conditions and the minimum rates prescribed for the carriage of coal for the general public and for State or other railways were revised. Previously the minimum laid down was $\frac{1}{10}$th of a pie per maund per mile, but it was considered that this restricted the trade in places distant from the coal-fields. The minimum to which railways may now reduce their rates has been fixed at $\frac{1}{10}$th of a pie for distances up to 300 miles, *plus* $\frac{1}{15}$th of a pie from 300 to 500 miles inclusive, and *plus* $\frac{1}{20}$th of a pie for any distance in excess of 500 miles. The conditions are that the rates shall be calculated on the through distance between the station of

origin and the station of destination of consignment; that when there are two or more routes to destination from the colliery where the traffic originates, the railway or railways forming the longer route may calculate charges on the same mileage as the railway or railways forming the shorter route; that coal for the use of foreign railways is charged at the same rates and under the same conditions as coal carried for the public; that the rates charged are divided between the railways over which the traffic is carried in proportion to the mileage of each, provided that, if the distance the coal is carried over any railway is less than 25 miles, the mileage of that railway in dividing the freight is reckoned as 25 miles, and that these rates shall be subject to revision at the end of three years from 1st September 1905.

*Projects for New Lines.*—The District Board of Kurnool submitted proposals for the construction, on the 3′ 3⅜″ gauge, of the Kurnool Road (Dhone)-Kurnool Railway (Madras), 32 miles, with the help of a special cess levied under the provisions of amended section 57 (ii) of the Madras Local Boards Act, 1884 (V. of 1884), supplemented by a loan from the Government of Madras under the Local Authorities Loan Act, 1879 (XI. of 1879). The proposals are awaiting a decision on the question of the alignment of the proposed through metre gauge connection between the railways in Northern and Southern India.

Revised proposals for the construction of the Rawalpindi-Murree Railway (Punjab), 40 miles, on the 3′ 3⅜″ gauge, have been agreed to.

The further consideration of the proposal for the construction, by private enterprise, of an electric tramway on the 3′ 3⅜″ gauge, from Sarai Kala, *viâ* Abbottabad, to the Kashmir frontier (North-West Frontier Province and Kashmir), 80 miles, has been dropped in consequence of the decision to construct by the State a through line from the same point, *viâ* Abbottabad, Domel, and Baramulla into Srinagar.

The terms of concession for the construction of the following extensions of the Dacca State Railway, viz.:—

| | Gauge. | Miles. |
|---|---|---|
| (*a*) Mymensingh, *viâ* Netrokona, to Bara Ari, with a branch to Gauripur (Eastern Bengal and Assam) | 3′ 3⅜″ | 36½ |
| (*b*) Singhjani, *viâ* Sherpur, to Nalitabari (Eastern Bengal and Assam) | 2′ 6″ | 25 |

have been communicated to the promoters.

Proposals for constructing a steam tramway on the 2′ 0″ gauge from Cawnpore to the left bank of the Jumna, opposite Hamirpur (United Provinces), 35½ miles, which were stated in the last report to be under consideration, have fallen through, as the promoters do not desire to proceed with the scheme on the terms offered.

The following proposals, also mentioned in the report for 1903, are still under consideration:—

(i) For constructing a 5′ 6″ gauge branch from Panchkura, on the Bengal-Nagpur Railway, to Luff Point (Puppy's Parlour) on the right bank of the Hooghly river (Bengal), 30 miles, and for making terminal and loading arrangements for ships or steamers at the latter place;

(ii) For extending the Ahmedabad-Dholka Railway from Dholka to Dhandhuka (Bombay), 40 miles;

(iii) For constructing a steam tramway from Dhandhuka to Ranpur (Bombay), 18 miles;

together with a proposal, alternative to (ii) and (iii) put forward by the Bhavnagar-Gondal-Junagad-Porbandar Railway Administration for extending their 3′ 3⅜″ gauge railway from Ranpur to Dhandhuka, and thence to Dholka.

Negotiations for the construction of the following lines have not advanced since 1904:—

(*a*) A tramway or light railway on the 2′ 0″ or 2′ 6″ gauge from Kamptee to Deolapar with a branch from Munsar to Ramteck (Central Provinces), 34½ miles;

(*b*) A light railway on the 2′ 6″ gauge from Serajganj to Ullapara (Eastern Bengal and Assam), 18 miles.

Proposal (*a*) has apparently been dropped.

RAILWAYS. The following proposals for railways to be constructed were received during 1905 :—

(i) A light railway from Samastipur to Rowsara (Bengal), 17½ miles, to be financed by the District Board of Darbhanga ;

(ii) A light railway from Rowsara to Khagaria (Bengal), 44 miles, to be financed by the District Board of Monghyr ;

(iii) An extension on the 3′ 3⅜″ gauge of the Ahmedabad-Parantij Railway from Idar Road to Bramhakhed (Bombay), 32 miles ;

(iv) A steam tramway from Borjan to Suntak (Eastern Bengal and Assam), about 8 miles, of which about 6 miles to be on the 3′ 3⅜″ gauge and the remainder on the 2′ 0″ gauge.

The consideration of (i) and (ii) has been deferred pending decision on the Bengal and North-Western Railway's proposal for an extension of the Tirhoot State Railway from Darbhanga to Khagaria, while projects (iii) and (iv) were under consideration on 31st December 1905.

The following proposals for railways in Aden were awaiting completion on 31st December 1905 :—

(i) Construction of a 2′ 6″ gauge line from Aden to Nobat Dakim, *viâ* Lahej, 40 miles ;

(ii) Construction of a railway from Aden to Sheikh Othman and D'thala.

*Throught Metre Gauge connection between the Railways in Northern and Southern India.*—A meeting of the Railway Board was held at Hyderabad in July 1905 to record the views of railway administrations interested in the proposed connection. After a careful consideration of these views the Railway Board formulated definite proposals for carrying the scheme into effect. These are at present under the consideration of the Government of India.

*Madura District Light (Vaigai Valley) Railway.*—The promoters, Messrs. Wilson & Co., have since renounced the concession granted to them for the construction of this line, in consequence of their inability to form a company and to raise the necessary capital.

*Gurmasaini Hill Extensions.*—In connection with a proposal of Messrs. Tata and Sons, of Bombay, for building iron and steel works near Sini, sanction was accorded to the survey, by the Bengal-Nagpur Railway, of a line on the 2′ 6″ gauge between Gurmasaini Hill in the Mourbhanj State and the Bengal-Nagpur Railway near Sini, 52 miles ; also to a reconnaissance for a line, about 35 miles in length, from the hill to a point on the main line between Narsinghar and Chakulia.

*Tinnevelly-Tiruchendur Railway.*—The construction of this branch is in abeyance, pending the settlement, between the South Indian Railway Company and the Tinnevelly District Board, of terms for its construction and working.

*Nilgiri Railway and Coonoor-Ootacamund Extension thereof.*—A scheme for working both this railway and extension by electricity has been investigated. The estimate is under consideration.

*Scheme for a Canal and Harbour at Rameswaram.*—A scheme for a canal and harbour at Rameswaram having been put forward for consideration, the British Admiralty intimated that, from an Imperial standpoint, a harbour at Rameswaram would be of no strategic value. Its commercial value and the probable cost of the necessary marine works are under investigation by the Marine Department and the Government of Madras.

## IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

IRRIGATION.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the United Provinces of Agra and Oudh, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £2,027,755, comprises 459 miles of main canal and 4,476 miles of distributaries, and in the year 1902–03 supplied water to 871,862 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,655,815, and consists of 319 miles of main channels and 2,692 miles of distributaries, while the Chenab Canal in the same province, which was completed in 1900, has cost £1,873,393, and consists of 427 miles of main and branch channels, and about 2,379 miles of distributaries, with an estimated irrigable area of 1,638,886 acres. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 379, and 844 miles, and together irrigate upwards of 2,500,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which

IRRIGATION. are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "major" and "minor" is not in complete correspondence with the facts, as there are some minor works which are of more importance than some major works. But, speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases, of old Native works almost entirely reconstructed by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1902–03 and 1903–04. The figures for 1904–05 are not yet available.

| | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | Acres. |
| Major Works<br>Minor Works | (Particulars not received from the Government of India). | | | | | |
| Total for 1904–05 | | | | | | |
| Total for 1903–04 | 30,414,966 | 3,130,620 | 1,022,958 | 2,107,662 | 6·93 | 15,194,969 |
| Total for 1902–03 | 29,648,303 | 3,002,126 | 972,360 | 2,029,766 | 6·85 | 14,088,188 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces of Agra and Oudh, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces of Agra and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

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On 18th May 1905 the Government of India submitted their views on the Report of the Indian Irrigation Commission. After consideration by the Secretary of State in Council, the conclusion of the Commission was accepted that the extension of irrigation could not be regarded as a panacea for the evils arising from periods of drought, and that even if a large extension of irrigation could be confidently relied upon as an effectual check to famine, it would be impossible, owing to the necessity of reinforcing the irrigation establishment and the difficulty of collecting and organising the necessary labour, to count upon any immediate and rapid expansion of the irrigation system. Approval was given to the recommendation of the Commission that the programme of future expenditure on irrigation works should provide for the construction of as many productive works as could be prepared, without reference to the urgency of the need for protection in the tract to be commanded by them, and that promising projects should be held in abeyance only when their execution was prevented by want of establishment or funds. A forecast of works recommended by the Commission for construction during the next 20 years, amounting to 4,400 lakhs of rupees (about £29,333,000), or at the rate of 220 lakhs a year, of which 1,510 lakhs would be absorbed by productive works, and 2,890 lakhs by works classed as unproductive, was accepted as a preliminary rough estimate.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal.

The major irrigation works in Bengal are divided into two classes :—

(*i.*) Productive works.
(*ii.*) Protective works.

The productive works comprise the Orissa, Midnapore, Hijili Tidal and Sone Canals. The Hijili Tidal Canal provides for navigation only; while the others provide both for irrigation and navigation. The total area irrigated by these canals during the year under review was 800,227 acres, or 9,104 acres less than in the previous year. This was chiefly due to a decrease in the *rabi* irrigation from the Sone Canals.

The total receipts during the year from irrigation, navigation, and miscellaneous sources in connection with the productive works were £136,042, or £1,732 more than the receipts for the previous year.

The protective works are the Tribeni and Dhaka Canals. The latter canal, a small work deriving its supply from the Lal Bakeya river in the Champaran district, is nearly complete and will shortly come into operation. The progress on the Tribeni Canal has been very slow, due to the difficulty of procuring skilled labour, but it is hoped that the head sluice may be completed and the first 20 miles of the canal well advanced in the present working season.

Flood embankments to the extent of 2,152 miles were maintained during 1904–05, the area protected being 8,695,137 acres. The total expenditure incurred on embankments and drainage works was £42,595, of which £28,892 were spent on embankments.

United Provinces.

In the United Provinces the capital outlay during 1904–05 amounted to nearly £156,700, of which over £45,000 were spent on the Ken Canal, a new protective work, and nearly £23,300 on the Mát Branch Extension. Protective works absorbed £59,533, productive works £79,333, and minor works the remainder.

The Mát Branch Extension was completed, the construction of the Ken Canal was continued, and the Dukwa Weir on the Betwa Canal was begun. Throughout the province progress was made in remodelling distributaries and in other measures connected with the development of irrigation; many buildings were also constructed. The total capital outlay on canals amounted on 31st March 1905 to nearly £6,460,000. The length of channels open on that date was 13,553 miles, including 184 miles added during the year. The Agra Canal was closed to general navigation, and a similar step is contemplated for the Upper and Lower Ganges Canals owing to the unprofitableness of the work and its interference with the development of irrigation.

IRRIGATION. The gross receipts, both direct and indirect, from all canals amounted to nearly £693,330, a sum which has only once been exceeded, viz., in the famine year 1896-97. Working expenses were slightly above £240,000, and the net revenue was about £453,330, as compared with £420,459 in 1903-04. The percentage of net revenue to total capital outlay at the end of the year was highest for the Eastern Jumna Canal, 22·82; the Bijnor Canals, 14·70; and the Upper Ganges Canal, 9·88; for the province as a whole the percentage was 7. After the deduction of interest charges, the net profit was £225,420, as against £196,487 in 1903-04. On this basis, the Betwa Canal produced a deficit, but it had gross receipts beating all previous records, and showed a smaller loss than it had ever done before.

The total area irrigated during 1904-05 (excluding the figures for the Tarai and Bhabar Canals, which are under the Commissioner of Kumaon) amounted to 2,104,178 acres, being 544,972 acres less than in 1903-04 and 121,786 acres below the average of the last 12 years. The *kharif* season was normal, and there was a full demand for water; for the *rabi* crop, however, irrigation was required less than usual, owing to a storm in October rendering waterings previous to sowing unnecessary, and frequent falls of rain throughout the cold weather supplying enough moisture to the growing plants. Notwithstanding the decrease in the area irrigated, the sum assessed was greater than the average for the last 12 years, owing to the large area under sugar-cane, which crop bears a high rate.

The areas under sugar-cane and cotton during 1904-05 have never been approached in previous years, while that under rice has recovered some of the ground lost in 1903-04, though it is still much below the average of the 12 preceding years.

Punjab. In the Punjab the general results of the year's operations for all works are shown in the following table in comparison with the records of the five previous years :—

| Year. | Capital Outlay to End of Year. | Area irrigated.* | Assessed Revenue.* |
|---|---|---|---|
| | £ | Acres. | £ |
| 1899–1900 | 6,311,559 | 4,743,329 | 920,322 |
| 1900–01 | 6,619,394 | 5,702,296 | 1,008,954 |
| 1901–02 | 6,744,839 | 5,065,134 | 1,015,069 |
| 1902–03 | 6,998,734 | 5,256,040 | 1,066,436 |
| 1903–04 | 7,164,461 | 5,963,102 | 1,195,207 |
| 1904–05 | 7,292,993 | 5,858,199 | 1,231,641 |

* Includes Muzaffargarh Canals.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept :—

| Canals. | Length of | | Capital Outlay to end of Year. | Net Revenue collected in Year. | Percentage of Net Revenue on Capital Outlay. |
|---|---|---|---|---|---|
| | Main and Branch Channels. | Distributaries. | | | |
| | Miles. | Miles. | £ | £ | |
| Major Works :— | | | | | |
| Western Jumna (including Sirsa Branch). | 347 | 1,856 | 1,151,697 | 115,938 | 10·07 |
| Bari Doab | 369 | 1,594 | 1,321,554 | 160,326 | 12·13 |
| Sirhind (British portion) | 319 | 2,692 | 1,655,815 | 113,612 | 6·86 |
| Lower Chenab | 427 | 2,379 | 1,873,393 | 458,652 | 24·48 |
| Lower Jhelum | 113 | 683 | 950,163 | *—1,296* | — |
| Upper Sutlej (including Lower Sohag and Para). | 324 | 394 | 114,715 | 11,901 | 10·37 |
| Sidhnai | 68 | 131 | 86,853 | 22,481 | 25·88 |
| Indus Inundation | 657 | 86 | 98,365 | 9,876 | 10·04 |
| Minor Works :— | | | | | |
| Shakpur (Imperial) | 72 | 80 | 14,394 | 2,591 | 18·00 |
| Ghaggar | 41 | 24 | 22,883 | *—2,558* | — |
| | 2,740 | 9,919 | 7,289,832 | 891,493 | 12·23 |

All the Punjab canals earned over 6 per cent. with the exception of the Lower Jhelum, which suffered severely owing to an outbreak of plague in 1904, which not only caused heavy mortality among the people, but prevented crops from being sown, and the Ghaggar, which, under existing circumstances can never become a financial success. The Sidhnai Canal gave a return of 25·88 per cent., while the Chenab, the largest of all, paid 24·48 per cent. on its capital outlay. IRRIGATION.

On the Native States branches of the Sirhind Canal the area irrigated was 347,416 acres, against 308,568 acres in the preceding year. The profit earned by these branches was 4·44 per cent. on the total capital expenditure incurred to the end of the year.

The capital outlay for the year on works for which full accounts are kept amounted to £125,373, of which £62,994 was expended upon the Jhelum Canal, £40,729 on the Indus Inundation Canals, and £8,649 on the Bari Doab Canal. In addition £3,159 was expended on the Upper Chenab and Upper Jhelum Canals, which are now under construction.

The navigation operations on the Western Jumna Canal resulted in a profit of £4,008. The Sirhind Canal navigation was worked at a loss of £56.

The Lower Chenab Canal has attained remarkable financial results. In so short a time as 18 years it has not only paid off the whole of its interest debt, amounting to over £778,300, with a surplus revenue of over £1,625,000, but will probably by the end of 1905-06 also pay off the total capital expended on its construction. It is also interesting to note that the surplus revenue (after defraying interest charges) of the Bari Doab Canal at the end of March 1905 exceeded the total capital expenditure by nearly £70,000.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation canals. Burma.

In Upper Burma there are three large irrigation canals, the Mandalay, the Shwebo, and the Môn. Of these, the Mandalay Canal is nearly completed and was opened for irrigation in June 1903. The total capital outlay at the end of the year amounted to £346,694, of which £10,824 was expended in 1904–05. The total area irrigated was 42,983 acres, of which 985 acres were twice cropped; 3,718 acres of land were cleared and brought under cultivation during the year.

Construction work on the Shwebo Canal progressed satisfactorily. The capital outlay during the year amounted to £57,822, bringing the total to £259,029. The work is estimated to cost £320,273, and is designed to irrigate an area of 150,000 acres annually. Work on the Môn canals was continued, and £11,738 expended. A new scheme, the Ye-u Canal Project, which is expected to irrigate 100 square miles annually, was also sanctioned during the year, and the head works were put in hand.

The minor irrigation systems show a loss on the year's working of £839. Navigation works also resulted in a loss, the expenses being £10,043, against receipts amounting to £8,402. On the other hand, embankments which were maintained at a total cost of £23,713 produced a revenue of £108,254.

Irrigation is comparatively little resorted to in the Central Provinces as compared with many other parts of India, but its value is shown in years of short rainfall such as that under report, and the area under irrigation was more than double that of the preceding year. Tanks were, fortunately, unusually full of water, as a result of the abundant rainfall of the preceding year, and cultivators were able to take full advantage of them. Since the report of the Irrigation Commission was published, an active policy in the prosecution of State works for the provision of irrigation has been initiated, and the operations were steadily pushed on in 1904–05. The work of the Irrigation Circle is rapidly expanding, over £66,700 being expended on protective and other irrigation works. Eight large tank works under construction were practically completed during the year, and work on others is well advanced. Several important projects are now under investigation, including the construction of a very large project designed to utilise the surplus water of the Mahanadi. Nearly £17,000 was spent on minor irrigation works, which included the construction of numerous small tanks and of embankments for wheat fields. Central Provinces and Berar.

IRRIGATION. Madras.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the season was unfavourable.

There are at present in operation 9 major works and 33 minor works, for which capital and revenue accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 33 minor works for which full accounts are kept, 29 are irrigation systems, and four are tidal canals intended for purely navigation purposes. A new protective major work, the Mopad Reservoir, was sanctioned during the year and is now under construction.

Of the irrigation works for which full accounts are kept, the length of completed main canal was 3,457 miles, and of distributary channels 7,612 miles. The area irrigated during the year ending 30th June 1905, by these works was 3,317,256 acres, the crops grown being valued at £6,173,403. The canals used for navigation purposes only had a total length at the end of the year of 316 miles.

Taking all the works in operation for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement :—

| Year. | Capital Outlay. | Area Irrigated. | Net Actual Revenue. | Percentage of Net Revenue on Capital. |
|---|---|---|---|---|
| | £ | Acres. | £ | |
| 1900-01 | 6,136,629 | 3,426,374 | 444,521 | 7·24 |
| 1901-02 | 6,207,041 | 3,550,036 | 485,945 | 7·83 |
| 1902-03 | 6,299,896 | 3,525,034 | 480,595 | 7·63 |
| 1903-04 | 6,401,661 | 3,498,472 | 451,026 | 7·04 |
| 1904-05 | 6,515,022 | 3,317,256 | 456,668 | 7·01 |

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be £759,210. The returns as compared with those of the previous year show increases under all the systems except the Pennér River Canals, the Kurnool-Cuddapah Canal and the Srivaikuntam Anicut system. The decreases under those works were mainly due to the grant of large remissions, to a falling-off in the water-rate collections in 1904-05, and to a diminution in the area of second-crop cultivation.

The results of the year's working for the major works in operation are shown by the following figures :—

| Work. | Area Irrigated. | Capital Outlay. | Net Revenue. | Percentage of Net Revenue on Capital |
|---|---|---|---|---|
| | Acres. | £ | £ | |
| Godaveri Delta | 878,999 | 912,889 | 176,518 | 19·34 |
| Kistna Delta | 648,247 | 1,021,504 | 148,030 | 14·49 |
| Pennér Anicut | 129,007 | 429,248 | 573 | 0·13 |
| Kurnool-Cuddapah Canal | 88,919 | 1,451,419 | 6,993 | 0·48 |
| Baru Tank | 5,493 | 28,989 | 310 | 1·07 |
| Cauvery Delta | 989,226 | 218,238 | 56,521 | 25·90 |
| Srivaikuntham Anicut | 44,072 | 106,468 | 6,750 | 6·34 |
| Periyar Project | 156,634 | 622,321 | 25,371 | 4·08 |
| Rushikulya (Protective Work) | 96,274 | 333,606 | 2,474 | 0·74 |
| Total | 3,036,873 | 5,124,682 | 423,540 | 8·26 |

The minor works for which full accounts are kept irrigated an area of 521,786 acres and earned a net revenue of £33,128, equivalent to a percentage of 2·38 on the capital expended on them. The decrease of £15,357 in the net revenue as compared with that for 1903–04 was chiefly due to the diminution in the area cultivated and to the grant of large remissions owing to the unfavourable character of the season. The purely navigation works were in each case worked at a loss. IRRIGATION.

Besides the works referred to in the foregoing paragraphs there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The total irrigation revenue derived from these works in 1904–05 was £432,338, the net revenue being some £208,450, and the area irrigated by them 2,938,076 acres. These figures indicate a considerable decrease on those for 1903–04, which is attributable to the unfavourable character of the season. A plan for the systematic repair of some of these works has now been in progress for some years under the title of the "Tank Restoration Scheme," and is about two-fifths completed. Up to the 31st March 1905, an expenditure of £553,405 had been incurred under this scheme, and approximately 54,541 square miles had been investigated.

The investigation of two large projects, the Tungabhadra project and the Kistna Reservoir project, each estimated to cost about 12 crores of rupees, was completed during the year and the plans submitted to the Government of India. Another large scheme, the Cauvery Reservoir at Neringipat, and numerous other important projects are still under examination.

The capital expenditure for the year on major works amounted to £73,644, of which £30,925 was spent on the Kistna delta works, £12,430 on the Godaveri delta works, £9,413 on the Periyar project and £7,542 on the Cauvery delta scheme.

**Bombay, including Sind.**

In the Bombay Presidency, excluding Sind, the water system does not, as a rule, admit of the construction of large irrigation works. The rivers or streams are mostly small, and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or "tanks." In Sind the success of the irrigation operations is dependent on the regular rise of the river Indus.

During the year the total expenditure on irrigation in the Bombay Presidency and Sind amounted to about £323,330 or £23,340 less than in the previous year. Of this amount £90,572 was spent on works, £139,014 on repairs, and the remainder on establishment, tools and plant, and suspense.

Of the works in Bombay, the Nira, Mutha, and Gokak Canals are the most important. A notable feature of the year's work was the completion of the automatic sluices at Lake Fife (Mutha canals system) whereby an increase of 46 per cent. in the available storage of the reservoir has been effected. Considerable progress was also made with the masonry dam at Chankapur in connection with the Girna Left Bank Canal. In all divisions careful attention was paid to small tanks, a large number of which were put into repair and also investigated for their irrigational possibilities. A preliminary survey was carried out for the proposed Mahi River Canal, which, it is estimated, would protect roughly 30,000 acres of rice and 10,000 acres of rabi. The survey of the proposed reservoir on the Sabarmati was commenced, but the preparation of the project has been suspended until it is known to what extent the Native States concerned will participate.

The surveys in the Deccan included investigations for canals on the Godaveri, Ghod, Nera Right Bank, Bhima, Mina, Kukari, Mula, Ghatprabha at Gokak, and Pravara to command some 4,200,000 acres, and good progress has been made with the projects.

The total area irrigated from the Deccan and Gujarat Works for which Capital and Revenue Accounts are kept was 131,905 acres against 87,819 acres in the previous year. The gross revenue rose from £51,976 in 1903–04 to £56,394.

IRRIGATION. In Sind the inundation was moderate, the river reaching the fair irrigating level of 13 feet at Bukkur for 40 days in the year. In general the canals worked well with the exception of the Unharwah and Sukkur Canals, where difficulties were experienced from erosion and consequent silting. Fair progress was made with tree planting on the banks of canals. As usual the discharges of the Indus were measured at Sukkur and Kotri, while silt experiments were continued at the former of these two places.

The Indus River Commission, in addition to its important systematic hydrographic and topographic surveys and study and record of the conditions of the Indus, undertook borings to determine the possibility of a weir at Sukkur.

The area irrigated by all classes of works in Sind was 2,923,928 acres against 3,151,807 acres in the previous year. The gross assessed revenue amounted to £443,153, of which £32,797 were on account of direct and £410,356 on account of indirect receipts, the corresponding figures for 1903–04 being £33,389 and £455,525 respectively.

In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for water from the canals. This fact and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province.

North-West Frontier Province. The only major work in the North-West Frontier Province is the Swat River Canal, a protective scheme with a length of 22 miles in the main and branch channels and 186 miles in distributaries. The capital expenditure on this work to the end of 1904–05 amounted to £278,047, and the net revenue for the year was £26,971 or 9·7 per cent. on the capital invested. The area irrigated was 159,412 acres compared with 176,346 acres in the previous year, the falling-off in irrigation being due to heavy rains which weakened the demand for canal water. All the schemes for minor extensions of the Swat River Canal have been laid aside in favour of a bold project for irrigating the whole of the remaining irrigable area lying north of the Kabul River, by a canal to take off from the Swat River at Chakdarah.

The minor works in operation include the Kabul River Canal with a capital expenditure of £42,071, and the Bara River Irrigation Works. The operations of the Kabul River Canal for the year resulted in a profit of £6,056, which is equivalent to 14·4 per cent. on the capital invested. In the previous year the profit and percentage were £3,674 and 11·0 respectively. The area irrigated during the year was 27,843 acres against 29,427 acres in 1903–04. An extension of the Kabul River Canal, named the Hazar Khani Branch, is now being constructed and will add considerably to the prosperity of the district.

The revenue management of the Bara River Irrigation Works is in the hands of the Civil Department and reports of area irrigated and revenue earned are not available.

Baluchistan. The two chief Irrigation Works in the province, viz., the Shebo Canal and the Khushdil Khan Reservoir, irrigated respectively 2,219 and 6,438 acres. The water revenue realised from each was £759 and £3,647. It was hoped that a Hazara settlement might be formed on the Anambar flood canal which is now in working order, but so far these hopes have not been realised.

The special grant of £3,330 for experimental borings for artesian wells will be chiefly expended in the current year, and these interesting experiments are being carefully watched.

Coorg. The outlay upon irrigation in Coorg during 1904–05 amounted roughly to £973. Only three major works were in progress, namely, improvements to the Chikle Hole and Rangasamudra channels and the Kudlur tank, but expenditure was also incurred on improvements to four less important tanks in North Coorg and miscellaneous repairs to tanks and channels throughout the province. Special attention was devoted to the investigation of larger projects, notably (i) the Devanur anicut, which was completely re-investigated during the year, and (ii) a scheme for the construction of a dam across the Harangi river. These investigations were much delayed by the lack of

technical staff, it being found impossible to procure additional subordinates possessing the necessary professional qualifications. IRRIGATION.

The year 1904–05 was not a favourable one for the crops in Ajmer–Merwara owing to the insufficient supply of water in the tanks, as the rainfall was neither timely nor abundant. Ajmer-Merwara.

The capital outlay amounted to £1,907, bringing the amount up to the end of the year to £211,329. The gross revenue during the year amounted to £8,339, the working expenses to £1,249, and the net revenue to £7,090, which gave a return of 3·35 per cent. on the capital expenditure. The area irrigated was 21,173 acres as compared with 32,957 acres in 1903–04.

## BUILDINGS AND ROADS (CIVIL).

BUILDINGS AND ROADS (CIVIL).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds. The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1904–05 under the heads referred to is shown in the following table:—

| — | Imperial. | Provincial. | Local. | Total in India. | Expenditure in England. | Grand Total. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Military works | 931,958 | — | — | 931,958 | 49,641 | 981,599 |
| Civil Works | 696,219 | 2,697,195 | 1,310,999 | 4,704,413 | 73,882 | 4,778,295 |
| Total, 1904–05 | 1,628,177 | 2,697,195 | 1,310,999 | 5,636,371 | 123,523 | 5,759,894 |
| Total, 1903–04 | 1,558,253 | 2,668,735 | 1,264,920 | 5,491,908 | 145,000 | 5,636,908 |
| Total, 1902–03 | 1,514,132 | 2,347,103 | 1,211,044 | 5,072,279 | 170,169 | 5,242,448 |

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to £128,295 in 1904–05. In 1903–04 the expenditure under this head amounted to £27,054.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

The following detailed account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

BUILDINGS AND ROADS (CIVIL). Bengal.

In Bengal the expenditure for the year on Civil Works was as follows:—

| | £ |
|---|---|
| Imperial | 176,166 |
| Provincial | 403,771 |
| Local | 318,858 |
| Total | 898,795 |

Additional golas were under construction at Salkea to provide further accommodation for the bonding of salt, while opium weighment and settlement centres were in course of erection where required. The new Foreign and Military Secretariat buildings were practically completed. Churches and Cemeteries, Customs, Stamps and Stationery, Museum and Observatory buildings, which were previously classed as "Provincial," were transferred during the year to the head "Imperial."

Under Provincial Works, several works were carried out in connection with the Civil and Criminal Courts in the province. The work of extension of the High Court was comenced, and the construction of the new Presidency Jail buildings was continued. The buildings for the new Dacca College and School of Engineering were in progress, while a new block at the Ravenshaw College, Cuttack, was commenced. Of the various medical works, the most important was the reconstruction of the Campbell Hospital, Sealdah, which was much needed. In order to provide accommodation for the office of the Board of Revenue, and additional accommodation for some of the offices located in Writers' Buildings, a new compound was constructed in the compound of Writers' Buildings. As His Honour the Lieutenant-Governor decided to live among the people of Bihar at least once yearly, the property known as "Chajjubagh" at Bankipore was acquired for his accommodation during his stay there. Quarters were provided during the year for several Government officials, including Munsifs. Steps were taken for erecting a suitable memorial on the battlefield of Plassey, together with small pillars bearing inscriptions indicating the various sites of interest, and a bungalow for the use of visitors, with the necessary roads and paths.

Under the head of Communications, the alignment of a feeder road in the district of Ranchi to the Bengal–Nagpur Railway was marked out. A direct route from the plains in the district of Jalpaiguri to the Tibet border was investigated during the year.

United Provinces.

In the United Provinces of Agra and Oudh the outlay under the different heads of service was as follows:—

| | £ |
|---|---|
| Imperial | 47,021 |
| Provincial | 414,407 |
| Local | 219,828 |
| Total | 681,256 |

The most important buildings in course of construction were the Currency office at Cawnpore, the Court-house at Aligarh, and quarters for the Imperial Cadet Corps at Dehra. Residences for Secretaries to Government at Allahabad and a leper asylum at Naini were completed. At Lucknow a normal school for girls was commenced and at Ghazipur progress was made with a project estimated to cost nearly £7,000 relating to the opium factory. Nearly 100 miles of new metalled roads were constructed, and large sums were spent on improving the pilgrim routes and other hill roads. The Chota Gandak river in Gorakhpur was bridged at a cost of £10,000.

The sum of £533 was spent on improving the navigation of the Ganges for about 275 miles in the Allahabad district and the Benares division.

Punjab.

In the Punjab the expenditure for the year on Civil Works was as follows:—

| | £ |
|---|---|
| Imperial | 62,558 |
| Provincial | 280,145 |
| Local | 68,619 |
| Total | 411,322 |

BUILDINGS AND ROADS (CIVIL).

During the year under review the new Imperial Civil Secretariat at Simla was practically completed, together with the necessary out-offices; alterations and additions were also made to the old Civil Secretariat and to the Foreign Office. It was decided to rebuild and raise the main tower of Viceregal Lodge, and the work, including the provision of water tanks for fire protection, was put in hand. At Snowdon, the residence of His Excellency the Commander-in-Chief, additions on a very large scale were sanctioned and commenced. The "Retreat" and "Knockdrin" estates were purchased for £6,006 and £4,000 respectively, and certain necessary alterations to the properties were carried out. A combined Post and Telegraph Office at Sargoda and a residence and office for the Telegraph Sub-Divisional Officer at Lyallpur were also completed.

Under the head of Provincial Civil works, a Deputy Commissioner's Court at Shahpur was completed, new Sessions houses were built at Campbellpur and Karnal, new Normal Schools at Delhi and Lahore, and an office for the local Inspector of Schools at Rawalpindi. A new District Jail at Mianwali and a new District Court at Campbellpur were also in course of construction during the year. In the Delhi Fort the restoration of the Sawan building was completed, and repairs were carried out to the marble works of the Akab Hammam and the Diwan-i-khas. Other interesting antiquities were also put in order with a view to their maintenance as archæological monuments.

The Amritsar waterworks were completed at a cost of £63,690, and new waterworks were started at Sargoda.

A large Contribution Work, viz., the Victoria Jubilee Hospital at Amritsar, was finished at a cost of £11,700 and was opened in November 1904.

The increased expenditure on new roads was maintained, but the wants of the Province in this connection are very heavy. In the Chenab and Jhelum Canal Colonies good progress was made with the various feeder roads under construction, notwithstanding great difficulties in getting labour and transport. In Kangra, part of the Palampur-Baijnath road was metalled and the Awa Khud bridge was finished. The improvement of the roads in Mandi, commenced late in 1901–02, was completed. Boat bridges were maintained on all important through lines of communication, and the usual steam ferry was worked over the Indus at Dera Ghazi Khan under the management of the North Western Railway.

In addition to the above, the Public Works Department continued the important local works connected with the improvement of Simla, most of which are being carried out on a programme approved by the Government of India, the necessary funds being obtained partly from an Imperial and Provincial grant, and partly from a Municipal loan.

The comparative expenditure on civil buildings and communications was as follows:—

| | Original Works. | Repairs. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| Civil Buildings - - - - | 169,336 | 37,200 | 206,536 |
| Communications - - - - | 33,337 | 82,226 | 115,563 |

Including station roads, the total road mileage at the end of the year was 22,989 miles, viz., 2,121 miles metalled and 20,868 unmetalled.

There was no necessity to undertake any Famine Relief Works during the year.

BURMA.

In Burma the total expenditure on Civil Works for the year was:—

| | £ |
|---|---|
| Imperial - - - - | 864 |
| Provincial - - - - | 634,703 |
| Local - - - - | 96,494 |
| Total - - | 732,061 |

BUILDINGS AND ROADS (CIVIL).

Among the more important items of construction were the demarcation of the Burma-China boundary and the provision of houses and offices at Maymyo, and of accommodation in Lower Burma for the courts to be established under the new Judicial scheme. New jails at Mogôk and Moulmein, new barracks for the Military police at Pyapôn, and in the Southern Shan States, block-houses on the north-eastern frontier and stations and quarters for the Civil Police in many places were completed or under construction. The scheme for the construction of a new General Hospital was sanctioned and work commenced, and the designs and estimates for the Chief Court were completed. The additional wings of the Public Offices in Rangoon were approaching completion by the end of the year. Communications were improved by the addition of 304 miles of roads to the mileage already supervised by the Department. The Siamese frontier was tapped in two places, while the Chinese frontier road was carried over the border and continued for 26 miles in Chinese territory. Several important bridges, notably those over the Myitnge at Hsipaw and over the Sittang on the road to Thandaung, were projected, begun, or completed.

Central Provinces and Berar.

The amount of the expenditure for the year was:—

| | £ |
|---|---|
| Imperial | 49,615 |
| Provincial | 224,746 |
| Local | 35,798 |
| Total | 310,159 |

No Imperial works of any importance were undertaken during the year. About 33 lakhs of rupees (£220,000) were spent on Provincial works, of which 16 lakhs were utilised in the construction of new roads and buildings, while the remainder was expended on repairs and establishment. Considerable sums were devoted to the erection of new Tahsil offices and an extensive programme of works was carried out for the provision of new police station-houses. Original works also included the collection of materials for the new secretariat offices at Nagpur. The extension of school buildings in Berar received particular attention, while considerable provision was made for additions to hospitals, dispensaries and asylums. The total outlay upon original works of communications amounted to close on £33,000 and activity in this direction was manifested chiefly in road construction in Chanda, Hoshangabad, Bhandara and in Eastern Berar. Over £53,000 were expended on repairs to existing roads, but a much larger expenditure could usefully be incurred in the extension and improvement of communications did the Provincial finances admit of it. The Victoria Memorial Technical Institute at Nagpur was completed during the year at a total cost of nearly £10,000.

The output in the Warora Colliery during the year amounted to 114,718 tons, or a decrease of 2,182 tons as compared with the preceding year. The net profit was £11,478, equal to a return of 12·32 per cent. on the capital expenditure, which may be considered very satisfactory.

Assam.

The total expenditure in Assam for the year was as follows:—

| | £ |
|---|---|
| Imperial | 2,304 |
| Provincial | 152,846 |
| Local | 41,669 |
| Total | 196,819 |

The most important buildings in hand were residences for the Judge of the Assam Valley districts and for the Deputy Commissioner of Nowgong, new sub-divisional offices at Suramganj, circuit-houses at Dibrugarh and Silchar, cubicles in the Sylhet Jail, and Military Police Barracks at Dibrugarh. The scheme for restoring the old Assamese protective embankments in Sibsagar and Lakhimpur was completed. This involved the restoration of 83 miles of embankments, and the total cost of the work since 1903 has amounted to nearly two and a half lakhs of rupees. Five and three quarter lakhs of rupees were spent on the improvement of communications. Original

works included the improvement of the Shillong-Gauhati road, the metalling of the Manipur cart-road, the construction of permanent bridges over the Karong and Dhansiri rivers, and the extension of the North Trunk Road to Subansiri. Progress was made in replacing temporary bridges by permanent structures, and a number of feeder roads to the Assam-Bengal Railway were constructed or improved. BUILDINGS AND ROADS (CIVIL).

In Madras the expenditure for the year on Civil Works was as follows :— Madras.

| | £ |
|---|---|
| Imperial | 18,576 |
| Provincial | 279,697 |
| Local | 359,391 |
| Total | 657,664 |

There were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

The principal buildings under construction were a Veterinary College at Madras estimated to cost £7,086, the Postmaster-General's office with Sub-Post Office at Madras, a District Court-house at Coimbatore and a Training School for Mistresses at the same place. Besides these, additions to the Government Ophthalmic Hospital at Madras and to the Secretariat Office, Octacamund, were carried out, and installations of electric light were completed in the Government Houses at Madras and Ootacamund.

The Government of India having considered it necessary to establish a Pasteur Institute in the South of India, a site was selected at Coonoor on the Nilgiri Hills and preliminary arrangements were made for the erection of the necessary buildings. A sum of £6,667 has been allotted for the purpose from the donation recently placed at the disposal of the Government of India by Mr. Henry Phipps for expenditure on suitable objects of public utility.

An extension of the buildings of the Lawrence Asylum at Lovedale was also carried out by the Public Works Department mainly from funds placed at its disposal by the Lawrence Asylum Committee.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and good progress was made with the construction of the cart roads to the Travancore, Anamalai and Shevaroy planting districts; the improvements to the Tellicherry-Coorg road were also continued, and a road for opening up the planting district of the Lower Palnis was sanctioned and partly completed during the year. The greater portion of the road system in Madras is, however, in the hands of the Local Boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 23,629 miles of road were maintained by public authorities, apart from roads and streets within municipal limits.

The water works for the supply of Tuticorin were nearly completed during the year. They are intended to improve both the quantity and the quality of the supply hitherto received from the Korampolliem tank, five miles distant.

The usual work of conservation of archæological works was carried out during the year, the total demand for the year's programme amounting to £1,616, of which more than half was spent on the Hampi ruins in the Bellary district.

The expenditure on Civil Works in the Buildings and Roads branch in the Bombay Presidency for 1903–04 was as follows :— Bombay.

| | £ |
|---|---|
| Imperial | 45,033 |
| Provincial | 306,878 |
| Local | 160,860 |
| Total | 512,771 |

BUILDINGS AND ROADS (CIVIL).

The principal buildings completed during the year were Male and Female Training Colleges at Poona, a Court-house for the District and Subordinate Judges at Nasik, a new hospital for the City Police at Byculla, a Vaccination Depôt at Parel, a Civil hospital at Dhulia, a Branch Custom House at Prince's Dock, Bombay, erected at a cost of £15,132, a combined Post and Telegraph Office at Ahmednagar, and quarters for observers in connection with the Government Observatory at Colaba. Works in progress included the new Observatory at Alibag estimated to cost £9,190, a combined Post and Telegraph Office at Tatta, and the extension of the Paper Currency Buildings at Bombay. The clearing of a site for the New General Post Office, Bombay, and the making of a road fifty feet wide were completed, and the work of filling in the foundations was commenced. Land was also acquired for a new civil hospital at Karachi. Increased attention was given to the inspection and preservation of archæological remains throughout the Presidency.

The Provincial lines of communication on which expenditure was incurred during 1904–05 included a number of new metalled and unmetalled roads in all divisions. The work of reconstructing the Koney Bridge at Karwar and a bridge on the Poona-Bangalore road in the Belgaum District was completed, and new road bridges over the Chitiwah Kalri Canal were commenced.

The Local Fund works consisted of roads, school buildings, and miscellaneous water-supply works carried out through the agency of the Public Works Department.

Works carried out during the year by the Public Works Department in relief of famine cost roughly £1,730.

Coorg.

The expenditure on Civil Works in Coorg was as follows:—

| | £ |
|---|---|
| Imperial | 19,922 |
| Local | 2,300 |
| Total | 22,222 |

Of the gross expenditure under Imperial heads, roughly about 37 per cent. was incurred on civil buildings and 63 per cent. on communications. Under buildings the principal work on hand related to the outlay of a portion of the special grant of £11,670 for the improvement of the local arrangements for medical relief, considerable progress being in particular made with the construction of new hospital buildings at Mercara, Virajendarpet and Somwarpet. The remaining expenditure consisted chiefly of the ordinary annual repairs and outlay on the construction or extension of police-lines, quarters for revenue subordinates, school gymnasia, and structural alterations in the headquarter offices at Mercara. Under communications the principal item was the new road connecting South Coorg with the Malabar-Wynaad, which made a material advance towards completion. The inspection bungalow at Napoklu was finished and a similar building was put in hand at Siddhapur, while sections of the more important roads were remetalled and two considerable streams were bridged on the main highway from Mercara to Kodlipet.

North-West Frontier Province.

In the North-West Frontier Province, the expenditure for the year on Civil Works was as follows:—

| | £ |
|---|---|
| Imperial | 145,108 |
| Local | 4,394 |
| Total | 149,502 |

The chief buildings undertaken during the year were in Peshawar, where the Victoria Memorial and a Hostel for native gentlemen costing £4,000 and £6,700 respectively were under construction. In the Wana Agency, where the posts are under reconstruction or alteration owing to the withdrawal of the troops, the excessive cold prevented much progress being made. The chief roads under construction were the Gomal Road and the Dera Ismail Khan-Zhob road through the Chuhar-Khel Dhana. In the former good

progress was made, though work was retarded by the unusual severity of the winter and by the difficult nature of the country, while the latter road was completed between Draband and the Dahna Sor. The Mullagori road was widened and made fit for wheeled traffic, and the metalling of the Abbottabad road joining the main road to Kashmir at Domel was completed through the remaining half of its length. BUILDINGS AND ROADS (CIVIL).

In Baluchistan a sum of £29,654 was expended from Imperial funds on Civil Works during the year. The improvement of the Chuhar-Khel Dhana road was completed, thus establishing direct and easy communication between the Zhob and Dera Ismail Khan districts. Baluchistan.

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

### Post Office.

Post Office.

The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

| Year. | Receipts. | Expenditure. | Net Revenue. |
|---|---|---|---|
| | £ | £ | £ |
| 1902–03 - - - | 1,429,935 | 1,346,778 | 83,157 |
| 1903–04 - - - | 1,507,153 | 1,403,224 | 103,929 |
| 1904–05 - - - - | 1,590,700 | 1,513,100 | 77,600 |

Of the increase in expenditure in 1904–05 nearly £50,000 is due to the final adjustment of payments due to the British Government on account of the subsidy to the P. & O. Company, for which a provisional payment had hitherto been made annually.

The above figures include the charge on account of district post establishments, which has hitherto been entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c.

The extent of the operations of the Post Office, and their development during the last three years, are shown in the tables in the margin. These include the figures for the district post, of which the Post Offices number 1,618; the letter-boxes 4,121, and the village postmen 2,059.

| Year. | Post Offices. | Letter Boxes. | Village Postmen. | Length* of Postal Lines. |
|---|---|---|---|---|
| | No. | No. | No. | No. |
| 1902–03 - - - | 14,736 | 31,071 | 8,135 | 139,814 |
| 1903–04 - - - | 15,403 | 34,005 | 8,219 | 145,655 |
| 1904–05 - - - - | 16,033 | 36,037 | 8,322 | 148,805 |
| Increase in 1904–5 over 1903–1904 - - - - | 630 | 2,032 | 80 | 3,150 |

* Including the Bombay-Aden line.

| Year. | Letters (including Postcards). | Newspapers. | Book and Pattern Packets. | Parcels. | Total. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1902–03 - - | 520,558,125 | 32,558,182 | 32,708,771 | 3,472,338 | 589,297,416 |
| 1903–04 - - | 559,345,660 | 34,262,838 | 34,351,819 | 3,941,809 | 631,902,126 |
| 1904–05 - - | 597,707,867 | 37,078,187 | 39,593,010 | 4,541,367 | 678,920,431 |
| Increase in 1903–04 over 1902–1903 - - | 38,362,207 | 8,056,540 | | 599,558 | 47,618,305 |

During 1904 and 1905, however, a great part of the District Post Establishments were transferred to the Imperial Establishment, and the process is being continued.

From 1906–07 the charges previously borne by the District Post Funds will be taken over by the Government of India.

Of the total length of postal lines, 32,820 miles belonged to the district post and 1,226 miles were political lines administered by the Imperial Post Office. The increase was greatest in Bombay.

The general correspondence returns, of which a summary is given in the margin, show an increase of 47 millions of articles (excluding money orders) carried by post in 1904–05, as compared with the figures for 1903–1904. Of the additional articles 27 millions were postcards, the total number of which exceeded that of letters.

POST OFFICE.

A useful innovation during the year under review was the introduction of small books of stamps interleaved with oiled paper so as to preserve the condition of the stamps in all weathers.

The total number of articles received for delivery, including money orders, was over 696 millions, of which 95·16 per cent. were delivered against 95·22 in the preceding year.

The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 5,264,164; of this number 1,363,311 articles were disposed of by being re-directed and then delivered to the persons to whom they were addressed, while 2,712,317 were returned to the senders, and 1,507,450 could not be disposed of. This last figure is only 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles not disposed of were from their nature not capable of delivery.

The figures for the postal articles (excluding parcels) exchanged between India and England are calculated by weight. A new basis of calculation was introduced in 1903–04, according to which the number of such articles is shown as 24,975,000 for 1904–05. The number for 1903–04, calculated on the same basis, would be 20,881,000. The greater part of this increase of 19 per cent. is due to a very large increase in the number of book-packets, newspapers, and samples sent to India.

The number of parcels exchanged with the United Kingdom rose from 260,950 in 1903–04 to 298,846—an increase of 14½ per cent. This formed over 63 per cent. of the whole foreign parcel traffic. They were mostly sent *viâ* Gibraltar, but about a ninth were sent by the quicker Brindisi route. In the exchange of parcels with other countries there was again a satisfactory development of the traffic in both directions, an addition of 7 per cent. having been made to the number of parcels. The increase in the number of parcels sent to non-European countries is again to be attributed in great measure to the steady growth of the parcel post with Ceylon, to which inland rates apply, and with Egypt. On 1st January 1904 India adopted the "Triple Scale" rates of the cheap Imperial Parcels Post scheme for the interchange of parcels with Great Britain. The same rates have since been adopted by her as regards various other parts of the British Empire.

The receipts from the insurance of letters and parcels were £19,333, as compared with £18,285 in the preceding year. There was an increase of 8·74 per cent. in the number of articles insured and of 6·15 per cent. in their value.

The average value for which each article was insured was, in the case of letters, Rs. 215, as compared with Rs. 223 in the previous year, and in that of parcels, Rs. 250, against Rs. 255 in 1903–04.

The number of claims for compensation preferred in respect of insured articles was 18, as compared with 23 in the preceding year. Eight claims were admitted, the loss being due in each case to fraud or negligence on the part of the servants of the Post Office. This involved the payment of £73 or ·37 per cent. of the total amount realised from insurance fees, against a percentage of ·93 in the preceding year. Of the ten claims not admitted, two were definitely rejected, and eight were pending at the close of the year.

The business of the value-payable post continues to show considerable progress. The number of articles sent was 4,813,514, and the amount declared for recovery by the Post Office from the addressees was about £3,500,000, the commission on which was £49,947. There was an increase of nearly 24 per cent. in the number of articles, of 12½ per cent. in the value specified for recovery, and of 17 per cent. in the commission realised. Calcutta was responsible for nearly one-third of the entire business.

During the year under review 56,205 value-payable articles were despatched from India to Ceylon (the only outside country to which the system has been extended), as compared with 50,913 articles in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 10. 9. 10, as compared with Rs. 11. 11. 0 in 1903–04.

POST OFFICE.

The reduction in 1902 in the commission on money orders not exceeding Rs. 5, while causing a great increase in the money order business, resulted in a diminution during 1902–03 of the receipts realised. In 1903–04, however, these receipts recovered, and in 1904–05 they reached the highest point recorded, namely, £238,488, as against £226,140 in 1903–04. At the same time the number and value of inland money orders issued in India, including telegraphic money orders but excluding transactions with Native States, increased from 16,470,115 and £19,623,942 respectively to 17,657,917 and £20,695,253. The average value of an inland money order was Rs. 17. 9., against Rs. 17. 14. in the previous year. This continual fall in the average price both of money orders and value-payable articles is considered satisfactory, as showing that both systems are becoming popular among a poorer class. The circles of Bengal, the United Provinces, and Madras are responsible for about half of the total money order business. In the United Provinces, Bombay and Bihar, the payments were considerably more than the issues; in Assam, Burma, Bengal, and the Central Provinces the issues were in excess.

The above figures include the special classes of money order for payment of revenue, rent, and miscellaneous Government dues. These show, on the whole, a decrease as compared with 1903–04.

Revenue orders are issued in Bengal, the United Provinces, the Central Provinces, the Punjab, and the North-Western Frontier Province. The amount issued under this head fell from £712,500 in 1903–04 to £694,000 in 1904–05.

Rent money orders are issued in Bengal, the United Provinces, and Central Provinces: the issues under this head fell from £173,000 to £172,000.

Orders for miscellaneous Government dues are issued in Bengal, the United Provinces, the Punjab, the North-Western Frontier Province, Madras, and Burma; the amount issued rose from £208,000 to about £220,000.

The value of money orders paid and issued in Native States were respectively £113,360 and £171,562. The excess of the issues by the States over the payments is again mainly due to the large issues of the Gwalior State.

The number of telegraphic money orders issued in 1904–05 was 197,759 for £1,383,426 as compared with 191,100 for £1,330,523 in the preceding year. The average value of a telegraphic money order was Rs. 104. 14. 11.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling. The number of these orders issued by India rose from 108,475 in 1903–04 to 115,540 in 1904–05, and the value increased from £365,992 to £368,004, while the orders paid in India fell in number from 93,447 to 90,056, but increased in amount from £617,958 to £659,925, of which about half was remitted from South Africa. Of the total sterling money order transactions, all except about £60,000 was with the United Kingdom and British colonies and possessions.

The average value of a sterling money order issued by India was £3 3*s.* 8*d.* as compared with £3 1*s.* 11*d.* in 1903–04, and that of a sterling money order paid in India was £7 6*s.* 7*d.* as compared with £6 12*s.* 3*d.*

The money order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from £68,058 in 1903–04 to £71,809 in 1904–05, and the orders paid by India rose from £490,125 to £535,681—the chief increases being in Zanzibar and German East Africa.

Including inland and foreign money orders, both ordinary and telegraphic, the total of the money orders issued by the India Post Office in 1904–05 amounted to £21,248,426, against £20,141,206 in 1903–04, and the total of payments to £22,039,043, against £20,895,046 in the preceding year.

At the close of the year there were 7,855 offices performing savings bank business, against 7,372 in the preceding year. The number of accounts in

the Post Office savings banks rose from 987,635 to 1,058,813, the deposits, exclusive of transfers from one post office to another, from £3,108,685 to £3,447,390, and the withdrawals from £2,733,656 to £2,958,952; and the interest rose from £233,050 to £254,123. The balance at the credit of depositors at the close of 1904–05 stood at £8,938,009, as against £8,222,448 at the close of 1903–1904. The average balance at the credit of each depositor was Rs. 126·62, as against Rs. 124·88 in the previous year. The table in the margin shows the number of depositors in different classes for the years 1903–04 and 1904–05.

POST OFFICE.

| Class of Depositors. | Average Number of Deposits. | | |
|---|---|---|---|
| | 1903–04. | 1904–05. | Increase. |
| I. Professional - | 324,583 | 344,593 | 20,010 |
| II. Domestic - | 175,602 | 187,123 | 11,521 |
| III. Commercial - | 37,930 | 40,591 | 2,661 |
| IV. Agricultural - | 16,431 | 18,014 | 1,583 |
| V. Industrial - | 32,602 | 35,766 | 3,164 |
| VI. Indefinite - | 400,487 | 432,726 | 32,239 |
| Total - - | 987,635 | 1,058,813 | 71,178 |

During 1904–05 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £75,500, against £25,700 in the preceding year; and the balance of securities held by the Comptroller-General on behalf of depositors at the close of the year was £123,700, compared with £83,100 on the 31st March 1904.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show an increase of about 2,000 lbs. over the previous year.

The total number of Native army pensioners whose pensions were paid through the Post Office in the Punjab and North-West Frontier Province during the year was 30,454.

During the year under review 1,960 new policies of the aggregate value of £157,133 were granted by the Postal Insurance Fund, and of these 1,629 were Endowment Assurance Policies, of the total value of £133,610. Claims, amounting in all to £13,456, were paid on the death of insured persons. At the close of 1904–05 there were 10,105 active policies in existence (3,982 held by Post Office servants and 6,123 by servants of other Departments), and the aggregate sum insured was £999,334. Nine life annuities were purchased by local funds for their servants under Article 807 of the Civil Service Regulations.

During the year under review there were 12 cases in which the mails were plundered by highway robbers, of which 8 were in British territory and 4 in Native States. The figures for the preceding year were 15 and 3 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 445. The defalcations and losses amounted to £1,834, as compared with £1,681 in 1903–04. A sum of £1,104 was recovered from the offenders or their sureties; £256 was charged against the Post Office Guarantee Fund; £15 was written off as irrecoverable, and £459 remained unadjusted at the close of the year. The balance at the credit of the Post Office Guarantee Fund at the close of the year was £71,100.

The number of complaints made by the public was 35,428, against 31,329 in the previous year. In 34·67 per cent. of the whole number the complaints were ascertained to be well founded; 41·58 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year, or no definite conclusion had been arrived at.

Revised rules have been introduced to facilitate the purchase of Government securities through the Post Office, no charge being made for brokerage or commission on the purchase or sale of whole pieces of Government paper, and no Income Tax being levied on these securities so long as they remain in custody of the Comptroller-General.

The status of the officer in charge of the Burma postal circle has been raised to that of Postmaster-General.

Although the Tibet Mission returned in October 1904, Post Offices have been maintained in Chumbi, Phari Gong, and Gyantse.

POST OFFICE.

The contract time for the conveyance of European Mails was reduced by 24 hours with effect from 17th February 1905, and the services between India and Burma, Bombay and Karachi, Colombo and Tuticorin, have been accelerated. A new special train has also been started for the conveyance of European Mails from Bombay to Madras.

TELE-GRAPHS.

## TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 61,684 miles of line, 227,436 miles of wire, and 313 miles of cable.

The gross receipts in 1904–05, amounting to £773,193, are the highest ever recorded and exceed those of 1903–04 by £23,801. This increase arises principally under the head of message revenue. The increase in the value of telegrams is not, however, at all proportionate to the increase in their number, owing chiefly to the lower rates which have been introduced for inland telegrams, for whereas the number of telegrams increased by 24·47 per cent., the message revenue increased by 3·32 per cent. only. A very satisfactory feature in the financial aspect of the year's work is the increase of £37,084 in the value of private telegrams, indicating as it does the appreciation by the public of the extended facilities for communicating by telegraph. Working expenses rose to £546,914, an increase of £8,636 on those of the previous year, due mainly to an increase of the Signalling Staff and to the improvement in the pay and allowances of that class. The net revenue for the year amounted to £226,279, representing a return of 3·88 per cent. on the capital outlay. In these figures, *pro formâ* revenue is included.

Capital expenditure was increased during the year by £274,826. Of this amount £24,188 represents the outlay in the Public Works Department on telegraph buildings, and the remainder consists of expenditure on additions to the system (including apparatus and plant) comprising 1,992 miles of line and 15,419 miles of wire, including cable. The total capital outlay at the close of the year amounted to £5,824,036.

The number of telegraph offices open to the public at the end of 1904–05, including railway and canal offices, was 6,481, of which 5,086 were maintained by the Department. The net addition to the number of offices during the year was 390.

The field telegraphs erected in 1903–04 in connection with the Sikkim-Tibet Mission were reduced during the year under review to 216 miles of single wire line and 6 offices. From the 15th November 1904, the system ceased to be a military field telegraph system.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1900–1901 | *4,510,939 | 52,909 | 170,766 | 283 | 1,851 | 3,097 | 4,948 |
| During 1900–1901 | 217,289 | 2,146 | 11,117 | 13 | 88 | 142 | 230 |
| „ 1901–02 | 247,741 | 772 | 8,721 | −13 | 67 | 47 | 114 |
| „ 1902–03 | 328,612 | 1,003 | 9,663 | −16 | 45 | 315 | 360 |
| „ 1903–04 | 244,629 | 2,862 | 11,771 | 25 | 76 | 363 | 439 |
| „ 1904–05 | 274,826 | 1,992 | 15,398 | 21 | 62 | 328 | 390 |
| To end of 1904–05 | 5,824,036 | 61,684 | 227,436 | 313 | 2,189 | 4,292 | 6,481 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

TELEGRAPHS.

A general view of the operations of the Department in 1904–05, in comparison with the results of the four previous years' working, will be gained from the following statement :—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1900-1901 - - | 6,449,372 | 753,764 | 472,262 | 281,502 | 37·34 | 5·95 |
| 1901-02 - - | 6,475,545 | 730,395 | 503,338 | 227,057 | 31·08 | 4·56 |
| 1902-03 - - - | 6,742,094 | 737,211 | 528,982 | 208,229 | 28·24 | 3·92 |
| 1903-04 - - - | 7,307,087 | 730,994 | 538,272 | 192,722 | 26·37 | 3·47 |
| 1904-05 - - | 9,098,345 | 765,274 | 546,914 | 218,360 | 28·53 | 3·75 |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1904–05 the receipts of the Department were not sufficient to cover both the working expenses and the amount expended on capital account, and there was a charge on Government revenues of £56,466.

The total number of paid telegrams sent in 1904–05 amounted to 9,098,345, as compared with 7,307,087 in 1903–04, showing an increase of 1,791,258 or 24·51 per cent. The increase in the value of these messages, however, amounted only to £22,097 or 3·90 per cent.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :—

| Class of Telegram. | 1903–04. | | 1904–05. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State - - | 812,490 | 120,997 | 801,170 | 105,849 |
| Foreign State - - - | 16,296 | 7,707* | 16,942 | 7,868 |
| Total State - - | 828,786 | 128,704 | 818,112 | 113,717 |
| Inland Private - - - | 5,581,297 | 303,705 | 7,281,734 | 322,668 |
| Foreign Private - - | 897,004 | 132,867* | 998,499 | 150,989 |
| Total Private - - | 6,478,301 | 436,572 | 8,280,233 | 473,657 |
| Total State and Private | 7,307,087 | 565,276 | 9,098,345 | 587,374 |

* These figures were affected by the opening of the American Pacific cable from San Francisco to Manila on 25th July 1903, the reduction of rates between India and Australia from 1st June 1903, and the reduction of Europe-China rates from 15th July 1903.

In inland private traffic there has been an increase of 1,700,437 or 30·46 per cent. in number, and £18,962 or 6·24 per cent. in value. Excluding press messages, the increase in number amounted to 1,699,502 or 30·66 per cent., and in value to £22,455 or 7·68 per cent. as compared with 1903–04. The figures for the year are the highest ever recorded. The increase in value is proportionately less than that in number, on account of the cheaper inland tariff introduced from 1st January 1904.

The following statement shows the development of the revenue from inland private traffic for the last 10 years :—

| | £ |
|---|---|
| 1895–96 - | - 231,687 |
| 1896–97 | - 249,228 |
| 1897–98 - | - 263,573 |
| 1898–99 | - 244,915 |

TELEGRAPHS.

| | £ |
|---|---|
| 1899–1900 | 294,485 |
| 1900–1901 | 294,071 |
| 1901–02 | 278,106 |
| 1902–03 | 291,339 |
| 1903–04 | 303,705 |
| 1904–05 | 322,668 |

Inland state telegrams show a decrease of 11,320 or 1·39 per cent. in number and £15,148 or 12·51 per cent. in value. The decrease is attributable in a great measure to the previous year being an exceptional one for state traffic on account of the preparations for the Sikkim-Tibet Mission.

In foreign private telegrams, which include press and all foreign transit traffic, there has been an increase of 101,495 or 11·31 per cent. in number, and £18,122 or 13·63 per cent. in the Indian share of their value.

Foreign state telegrams show an increase of 646 or 3·96 per cent. in number, and £161 or 2·09 per cent. in the Indian share of their value.

There were 14,045,940 words transmitted in inland press telegrams during 1904–05 as against 7,682,180 in the previous year, or an increase of 82·84 per cent., but the value has decreased from £9,582 to £6,230 or by 34·98 per cent., due to the reduced rates for inland press telegrams introduced from 1st January 1904.

In foreign press telegrams there were 651,947 words transmitted, against 472,050 in the previous year, or an increase of 38·10 per week. The Indian share of their value was £2,800, against £1,807 in the previous year, or an increase of 47·60 per cent. The figures under "foreign press" represent the number of press telegrams to and from India and the Indian share of their value, transit traffic to and from countries to the east and west of India being excluded.

The subscriptions to the Telegraph Department for telephone and similar services rendered during the calendar year 1904 amounted to £13,635, being an increase of £589 over the figures of the previous year. The average annual subscriptions for the past five years amount to £11,923.

The gross receipts of the Telephone Companies during the same year amounted to £35,690, being an advance of £1,391 over those of the previous year. Their average annual earnings during the past five years amount to £32,350.

Communication with Europe *viâ* Suez was interrupted between Suez and Alexandria for a few hours only on the last day of the year. The Teheran route was interrupted for 82 hours in all, as compared with 207 hours in the previous year, while the Turkish route was interrupted for 1,195 hours, as against 429 hours in 1903–04.

The proportion of international traffic to and from India, exclusive of transit traffic, over the several routes to Europe for the year 1904–05 was as follows :—

| | Per Cent. | |
|---|---|---|
| | No. | Words. |
| Indo-European :— | | |
| Viâ Teheran | 49·61 | 51·53 |
| Viâ Turkey | 1·51 | 1·11 |
| Persian Gulf, viâ Karachi | 1·40 | 2·01 |
| Red Sea :— | | |
| Viâ Suez | 47·48 | 45·35 |
| Total | 100·00 | 100·00 |

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

TELEGRAPHS.

Telegraphic communication with the Cape by the cables along the East Coast of Africa was interrupted on one occasion for about 11 days between Aden and Zanzibar, but traffic was diverted *viâ* the cables on the West Coast of Africa without any alteration in the rates.

As regards the East, communication with the Straits Settlements was maintained uninterruptedly during the year by the cables of the Eastern Extension Telegraph Company.

The land route to China *viâ* Bhamo was interrupted beyond the Indian frontier for 81 days, against 48 days in the previous year. There were no interruptions within the Indian frontier.

Communication with Siam over the Moulmein-Bangkok line *viâ* Kanburi was interrupted for 74 days, as against 47 days in the previous year. There were 26 interruptions, lasting 33 days, within the Indian frontier. The line from Moulmein to Raheng *viâ* Myawaddy was interrupted for 45 days, as against 11 days in the previous year.

Events of interest during the year were the meeting of an International Electrical Congress in St. Louis, United States of America, in September 1904, the introduction of the revised rules for foreign telegrams adopted by the International Telegraph Conference of 1903 with effect from 1st July 1904, the reduction by the Eastern Telegraph Company of their rates on the section Aden to Bombay on telegrams to Africa, and the reduction by the Government of India of the terminal rates on the same class of traffic, the opening of negotiations with China for the renewal of the Convention between that country and Great Britain for the working of the land line between Burma and Yunnan *viâ* Bhamo, and the installation of wireless telegraph communication between Burma and the Andaman Islands — the first installation of the kind in India.

## INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of two sections. The first, designated the Persian Gulf Section, extends by cable from Karachi to Bushire, Jask to Muscat, and Bushire to Fao, where a connection is made with the Ottoman Government line, and by land lies along the Mekran Coast from Jask to Gwadur, and thence to Karachi; while the second, called the Persian Section, consists of land lines running from Bushire to Teheran. The system comprises 1,951 knots of cable, 1,426 miles of line, and 3,577 miles of wire.

The Indo-European Telegraph Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

Under the terms of a Convention dated 16th August 1901 between the United Kingdom and Persia, the construction of a line, known as the Central Persia line, from Kashan to the Eastern frontier of Persia, was commenced in December 1902. This line has been completed through Yezd, Anar, Kerman, and Bam to a point 25 miles beyond Bam, and 596 miles distant from Kashan. Beyond this a single wire line, 211 miles long, has been constructed to form a connection with the Indian line from Quetta to Robat.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London in 1893, and placed under the direct orders of the Secretary of State. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

| YEAR. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1900-01 - - | 771,680 | 116,825 | 56,244 | 60,581 | 7·85 | 48·14 |
| 1901-02 - - | 818,747 | 121,936 | 57,310 | 64,626 | 7·89 | 47·00 |
| 1902-03 - - | 872,730 | 99,158 | 59,853 | 39,305 | 4·50 | 60·36 |
| 1903-04 - - | 913,320 | 107,173 | 61,749 | 45,424 | 4·97 | 57·61 |
| 1904-05 - - | 931,438 | 112,907 | 71,845 | 41,062 | 4·40 | 63·63 |

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the Joint Purse arrangement.

During the year under review the capital expenditure amounted to £18,118, of which £11,386 was incurred on the construction of the Central Persia line, £2,817 on the cable diversion to Henjam and the equipment of an office at that place, £1,445 and £1,394 on the construction of buildings in the Persian Gulf and Persian sections respectively, and £1,076 on the purchase of stores for future needs. The total capital expenditure at the end of the year amounted to £931,438.

The gross receipts of the Department show an increase of £5,784 as compared with 1903–04, but are still much below those for the years 1900–01 and 1901–02. This is due principally to the reduction of rates between Europe and India and the opening of alternative routes for messages transitting India.

The expenditure during the year shows an increase of £10,096, which occurred principally in the Persian section, and is due to the cost of the diversion of the Ispahan-Kashan line to the Ardistan route, to the outlay on repairs and renewals of lines, and to an adjustment of the cost of establishment employed on the construction of the Central Persia line.

The net result is a profit of £41,062, or 4·40 per cent. on the capital, as against 4·97 per cent. realised last year. The capital outlay on the Central Persia line is as yet almost wholly unproductive.

The number of messages forwarded during the year amounted to 216,171, being an increase of 26,465 or 13·95 per cent. over that for 1903–04.

Under the Joint Purse Agreement, the share of the Department was £3,212 more than last year, being £120,175 as against £116,963 in 1903–04. The amount paid into the Joint Purse for the year under review was £77,070.

The Departmental receipts from the Australasian Message Fund for 1904–05 amounted to £5,335, being £67 less than in 1903–04, and a decrease of £900 as compared with those for 1889, on which the original Australasian Message Fund was based.

The results of the year's working may be considered generally satisfactory. Delays and errors were not serious, except on the Turkish route between Constantinople and Fao, which continued to be worked unsatisfactorily. During the last five years this route has been interrupted for an aggregate of 208 days, 9 hrs., 39 mins. The Department was liable to the Joint Purse for 31 days' interruptions between Constantinople and Fao. Acts of wilful damage show a slight reduction as compared with those of the previous year, aggregating 536 and involving a sum of Krans 10,864. Of this sum Krans 265 were collected locally, and the balance deducted from the Jask Royalty.

# CHAPTER XIII.

## EDUCATION, LITERATURE, AND THE PRESS.

### Education.

EDUCATION.

Educational institutions in India are of two classes :—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a resolution published in March 1904, of which some account was given in last year's issue of this Statement.

Bengal.

The total number of institutions in Bengal was 65,554 with 1,865,252 pupils, as compared with 66,100 schools and 1,892,874 pupils in 1903–04. The decrease took place mainly in the primary stage, and was confined to unaided institutions. The proportion of scholars to the estimated population of school-going age fell from 30 per cent. to 29·4 per cent. in the case of boys, and rose from 2·8 per cent. to 3 per cent. in the case of girls. The total expenditure on education from all sources was £919,304, as against £924,360 in 1903–04. This amount was contributed in the following proportions :—Provincial revenues, 23·8 per cent.; district funds, 12·8 per cent.; municipal funds, ·9 per cent.; fees, 43·8 per cent.; all other sources, 18·7 per cent. The statistics of primary education showed a falling off in the number of schools from 49,093 to 48,176, or 1·8 per cent., and in attendance from 1,391,997 to 1,356,733, or 2·5 per cent. The reason for this decrease is not clear; it was, perhaps, partly attributable to the failure of crops and prevalence of disease in some of the divisions where it occurred. While the number of secondary schools increased by 12, and that of pupils studying the high school course by 856, there was a general decrease in attendance at secondary schools similar to that which occurred in the case of

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primary schools. This decrease, which amounted to 4,091, was most marked in the case of Middle Vernacular schools, and was attributed to the conversion of these schools into Middle English. Judged by the results of the Calcutta University entrance examination, the standard of teaching in high schools improved during the year. While the number of candidates decreased by 176, the number of passes rose by 128. There was a slight increase in the number of pupils attending the Arts College. Of 3,238 candidates who appeared at the F.A. Examination, 1,013, or 31·9 per cent., passed, as against a percentage of 34·8 in the previous year. The number of students who appeared in the B.A. Examination was 2,003, or 29 less than in 1903–04, but the results of the examination showed a marked improvement. The subject of residential colleges has been occupying attention; a new college, largely residential, has been nearly completed at Dacca, and the scheme for a model college at Ranchi is being advanced. An inquiry was made during the year into the condition of students' hostels and messes in Calcutta, and various reforms have been introduced. The statistics of female education offer a contrast to the general decrease in numbers which the year's record shows. The number of girls' schools increased by 4·9 per cent., and the attendance by 5·8 per cent., while the number of girls attending mixed schools was 4·8 per cent. higher than in 1903–04. The number of Muhammadans under instruction decreased by 3·1 per cent. to 529,895; a scheme for the improvement of Muhammadan education received the sanction of Government during the year.

United Provinces.

There were in the United Provinces at the end of the year 14,211 institutions with 502,389 scholars, as against 14,709 schools with 502,882 scholars in 1903–04. The decline is confined to private institutions, and is considered to be a nominal decrease for which the unreliable returns of such institutions are responsible. An increase of 165 in the number of public institutions and of 5,183 in their attendance were healthy signs of progress, particularly in a year when the plague was more general throughout the province, and more severe than in any previous year. There was an increase of 3,454 Bráhman scholars, but the number of non-Bráhman scholars showed a decline of 4,793. The increase among Muhammadans was 282, while Native Christians showed a noticeable increase of 475 scholars as compared with a decrease of 84 scholars reported in the previous year. The percentage of children under instruction to those of school-going age was 7·02; for boys it was 12·91, and for girls ·75, both figures being the same as in the previous year. The total expenditure on education from all sources was £382,021, an increase of £34,400 on the previous year. In spite of the widespread prevalence of plague, the number of scholars receiving primary instruction showed an increase of 618 during the year, the total number of boys in the primary departments being 378,894. The improvement occurred mainly in State schools. The results of the primary examinations were generally satisfactory. Secondary schools for boys numbered 506, and their attendance rose from 23,856 to 26,842. It is in secondary education that the United Provinces compare most unfavourably with the rest of India, and the increase by nearly 3,000 of the number of pupils in the secondary stage, in a year when education in general was almost at a standstill, owing to plague, was especially satisfactory. With regard to collegiate education, there are in the United Provinces two State colleges (at Allahabad and Benares), eight aided and fifteen unaided colleges. The number of students rose from 1,454 to 1,825. The Universities Act, 1902, came into operation within the limits of Allahabad University in September 1904, and good progress was made in giving effect to its provisions. Female education showed an advance in the number of institutions, which rose from 800 to 833, but the number of scholars fell, owing to the severe visitation of plague in the Agra and Benares divisions, from 26,048 to 25,812. A committee of Indian gentlemen was appointed during the year to investigate the difficult problem how to popularise female education in the United Provinces, and their report was under consideration at the close of the year. Considerable progress was made during the year under review towards the great object on which attention is now being concentrated—the improvement of the teaching and inspecting staffs.

EDUCATION. Punjab.

The total number of public institutions in the Punjab (including Native States) rose from 3,246 to 3,302, and their attendance from 194,915 to 199,039. The number of private institutions fell from 4,701 to 4,624, while their attendance decreased from 76,315 to 75,924. The total expenditure on education in British territory was £273,755, an increase of £1,255 as compared with that of the previous year. To this expenditure Imperial revenues contributed 3·1 per cent., provincial revenues 34·4 per cent., local funds 15·4 per cent., fees 23·4 per cent., and other sources 15·3 per cent. In Native States £15,419 was spent, of which £13,184 came from State revenues. There were 15 colleges in British territory and 4 in Native States, and the number of students upon the rolls remained practically stationary, the faculties of law and medicine showing a slight increase. The number of secondary schools in British territory fell from 326 to 321, but the number of pupils rose from 59,654 to 60,293, both boys' and girls' schools showing an increased attendance. In Native States secondary schools numbered 53, as in the previous year, but the number of pupils fell from 7,855 to 7,495. Primary schools showed a total increase of 53 to 2,878, and the number of pupils rose from 123,048 to 126,224. A large rise in the income from fees paid for this class of education was a satisfactory feature, but much still remains to be done towards furthering the expansion of primary education in the province. The attendance at schools for special instruction increased from 2,504 to 3,020. In particular the training institutions showed the record of a year's useful work, and the examination results attained by candidates from the Central Training College were specially satisfactory. Female education showed an advance from 16,668 to 16,817 in the number of girls attending public schools, and the total number of girls under instruction was 29,207. A strong movement in favour of female education is said to be growing up. The supply of teachers is still insufficient, but it is hoped that the new Normal School for Women will supply their want in the near future. As regards the various creeds, the total number of Hindus under instruction rose from 140,482 to 142,860, of Muhammadans from 123,749 to 124,971, and of Native Christians from 3,246 to 3,291. The reorganisation of the staff of the Aitchison College, which took place during the year, is reported to have been attended with promising results. The curriculum has been remodelled, and physical training is to be a prominent feature of the education of the pupils.

Burma.

In Burma, the statistics on the whole indicate further progress. The total number of institutions, public and private, rose from 19,716 to 20,509, and the attendance from 347,135 to 371,123. More than half the pupils were in public institutions. The total expenditure increased from £159,382 to £178,543. The portion of this expenditure borne by provincial funds shows an increase of £14,272; that borne by fees an increase of £2,952, and that borne by municipal funds an increase of £4,274, while the amounts attributable to local funds and to "other sources" decreased by £1,232 and £1,090 respectively. The Rangoon College had an attendance of 151 as against 166 in 1903–04, and of its candidates 4 out of 9 were successful in the B.A., and 35 out of 115 in the F.A. examination. From the Baptist College, which had 27 students, 10 went up for the F.A. examination, and 4 passed. There were in all 434 secondary schools with 38,345 pupils, and 4,590 primary schools for boys with 145,360 pupils. These figures show in every case a considerable advance on those of the previous year. Female education made very good progress. While increases of 5 per cent. and 12 per cent. in the number of girls in public institutions was shown by the returns of 1902–03 and 1903–04 respectively, a further increase of 15 per cent. took place during the year under review; the total number being 49,659. In private instutitions there were 5,128 girls as against 4,449 in the previous year. Muhammadan education showed some advance, the number of Muhammadans under instruction rising from 10,475 to 11,207. The school for the sons of *Sawbwas* at Taunggyi in the Southern Shan States continued to do good work. The establishment of a medical school at Rangoon was sanctioned during the year. With regard to the training of teachers, it is reported that teachers, as a class, are improving. The

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abolition of the untrained teachers' certificates is considered likely to prove highly beneficial. All teachers in Government schools who are at present untrained are being by degrees withdrawn for a course of training in a normal school, and it is hoped that this example may be followed in the case of municipal and aided schools. Much attention has been paid of recent years to normal schools, and it is believed that they are now of sufficient number and of increased efficiency. Among educational improvements arising out of the recommendations of the Simla Conference may be mentioned the decision to establish certain model secondary schools, the extension of the half-salary grant system to Vernacular teachers in indigenous schools, the issue of Rs. 50,000 in building grants to private managers to assist them to open indigenous schools in localities where no schools at present exist, and the construction of twelve Government primary Vernacular schools.

Central Provinces and Berar.

The outbreak of plague in the Central Provinces was less severe than in the previous year, but its prevalence in a sporadic form in nearly all districts necessarily interfered with the progress of education. Nevertheless, the result of the year afforded good ground for satisfaction. The number of schools in the Central Provinces increased by 43, and though, on the other hand, in Berar 62 schools, described as indigenous schools of an ephemeral character, disappeared, there was a considerable increase in the number of pupils. The total number of schools in the Central Provinces and Berar, including Feudatory States, was 3,583, and the total attendance 234,859, the latter figure showing an increase of nearly 15,000 on the previous year. The percentage of scholars to children of school-going age was 11·06 as against 10·5 in the year 1903–04. In British territory the percentage was 20·6 for boys and 1·6 for girls. The total expenditure in British territory was £122,034 as compared with £116,876 in the previous year. Of this, 37·9 per cent. was met from provincial funds, 35·7 per cent. from district funds, 6·9 per cent. from fees, and 10·6 per cent. from other sources. Different classes of education shared as follows:—Collegiate education, 3·03 per cent.; secondary education, 29·07 per cent.; primary education, 33·31 per cent.; technical education, 5 per cent. The average number enrolled in colleges fell by one to 265, although the Government College at Jubbulpore showed an increase of 26 in the number of students at the end of the year. The total number of public secondary schools was 433, with an attendance of 45,840. There were in British territory 2,818 primary schools, an increase of one on the previous year, and the attendance also increased from 150,212 to 155,985.

To turn to female education, the number of girls' schools in British territory increased from 217 to 229, and their strength rose from 11,076 to 11,775, the largest increase being in Government schools. Administrative reforms undertaken during the year included a scheme for improving the position and prospects of masters in Government high and normal schools, and thus adding to their efficiency. Further progress was also made in giving effect to the policy laid down by the Government of India of substituting more efficient inspection for examinations. A new inspector's circle was created, and an Inspectress of Girls' Schools was also appointed, while European schools have been entrusted to a separate Inspector of European Schools whose services are shared with the Bombay Government. In Berar, every effort was made to introduce uniformity with the educational system of the Central Provinces.

Assam.

The number of public institutions in Assam was 2,817, as against 3,005 in 1903–04, while private institutions fell from 227 to 192. The decrease was due to the closure of a large number of village schools which were so inefficiently managed as to be unable to continue their existence under the new system. The number of pupils in private institutions continued to decline, but a marked recovery commenced in the attendance of public institutions which increased by 1,848 to 103,385. The total number of persons under instruction was 108,128. There was a considerable increase in all stages, except the Middle Vernacular. The percentage of pupils to population of school-going age was 21·6 in the case of boys and 1·11 in the case of girls. The total expenditure during the year was £69,761 as against

£64,358 in the previous year. Of this, £21,698 was borne by provincial revenues, £25,758 by local and municipal funds, £12,243 by fees, and £10,060 by private sources. Primary schools for boys numbered 2,518 with 82,969 pupils, as compared with 2,682 schools with 80,757 pupils in 1903–04. Secondary schools increased from 143 to 150, and their attendance rose from 14,765 to 15,919, the principal increase taking place in the number of pupils at high schools. The Murarichand College in Sylhet and the Gauhati State Cotton College—the two second-grade colleges in Assam—sent up 20 and 46 students respectively for the First Arts examination, of whom 8 and 23 respectively were successful. Girls' schools fell in number from 140 to 126, and the number of girls under instruction in all kinds of schools decreased to 6,103. A very important feature of the educational administration of the year was the publication of the School Manual. A number of important changes having been made during the past three years, it was desirable completely to recast the rules in force in a simple and convenient form, and it is hoped that the manual will prove of great value. EDUCATION.

Coorg had at the end of the year 86 public schools, with 3,968 pupils in attendance, the figures for the previous year being 88 and 4,030 respectively. With three exceptions, one normal and two secondary, all were primary schools. Private institutions numbered 25, and their attendance was reported to be 517, both figures showing a decrease on the year 1903–04. But these institutions are under no supervision, and the statistics relating thereto cannot be regarded as trustworthy. The percentage of scholars among the population of school-going age was 15 for boys and 4·7 for girls. The total expenditure was £2,945, or £296 more than in the previous year. Various reforms in connection with the recommendations of the Simla Conference were introduced during the year, including improved arrangements for the inspection of schools and the establishment of three model primary schools at the cost of Government. Coorg.

The number of public institutions in the North-West Frontier Province rose from 206 to 217, and of pupils from 13,975 to 14,788. The number of private schools also showed an increase, rising during the year from 744 to 834, and their attendance from 12,464 to 13,026. The increase in number and attendance spreads over schools of all kinds. The total number under instruction constituted 8·3 per cent. of the population of school-going age. The total expenditure was £13,250, an increase of £524. The increase was confined to the head "Direct Expenditure," and was distributed over all the institutions and shared proportionately by almost all funds. The Edwardes Church Mission College at Peshawar, the only collegiate institution in the Province, had 23 students, as against 17 at the end of 1903–04. Secondary schools numbered 25, as in the previous year, while their attendance showed an increase from 5,078 to 5,120. Primary schools for boys number 179, or seven more than in 1903–04, with an increased attendance of 8,797. The number of girls under instruction rose from 2,225 to 2,647. Of these only 848 were being educated in public schools. North-West Frontier Province.

The total number of educational institutions, public and private, of all grades in Madras, rose from 26,771 to 27,648, and the average number on the rolls, counting all classes of institutions, increased from 875,051 to 922,807. Of the total population of school-going age, 29·1 per cent. of the boys and 5·2 per cent. of the girls were under instruction. The percentage of scholars to population of school-going age rose slightly in all the district groups except the ceded districts, in which it remained stationary at 11·6, the total percentage being 16·9 as against 16·1 in the previous year. The proportion of scholars in the lower primary stage was 84·2 per cent. of the total number. The expenditure on public instruction from all sources rose from £594,086 to £595,311, of which £184,059 was provided by Government, £54,472 by district boards, £15,019 by municipal councils, £197,004 from fees, and £144,787 from endowments and miscellaneous receipts. Over 56 per cent. of the total expenditure related, as in the previous year, to secondary and primary education. First grade and second grade colleges numbered respectively 11 and 29, as in 1903–04; the strength of both increased Madras.

EDUCATION. considerably. The three colleges specially intended for women had 12 students, while 18 women attended the men's colleges. The number of candidates admitted to degrees in the several faculties of the Madras University was 752, as against 656 in the previous year, the increase occurring almost entirely among those taking the degree of Bachelor of Laws. For the M.A. examination 12 candidates out of 39 were successful. Upper secondary schools for boys increased by one, and their strength from 49,887 to 50,785. In the lower secondary stage there were, in all classes of institutions, 44,277 scholars, an increase of nearly 2,000 during the year. There were 27 upper and 170 lower secondary schools for girls. The latter figure is the same as in 1903–04, and the attendance considerably increased; the former figure shows an increase of 2, and the attendance rose slightly. The total number of girls in the secondary stage of instruction at the close of the year was 4,673 as against 4,447 in the previous year. The number of public primary schools advanced from 19,246 to 20,146 in the case of boys' schools, and from 811 to 879 in the case of girls' schools, and the attendance in each instance showed a marked improvement. The total numbers of boys and girls in the primary stage of instruction in public schools were, respectively, 665,943 and 130,580 as against 630,878 and 121,090 in 1903–04. Technical, industrial and art schools increased in number, and there was a corresponding increase in their strength. At the Government technical examinations there was a further increase in the number of subject candidates, while the number that passed rose from 2,326 to 2,616, the percentage of success rising from 38 to 40. There was a rise from 2,070 to 2,099 in the total number of institutions for Muhammadans, and their strength increased from 80,054 to 82,041.

Bombay. The ravages of plague again severely affected the educational record of the Bombay Presidency, but its prejudicial influence was not so extensive as in previous years. There was a large decrease in the number of schools closed on account of the disease, and a corresponding increase in the number of pupils under instruction. The total number of educational institutions in Bombay and Sind was 12,976, with an attendance of 666,103, the figures of the previous year being 12,460 and 578,360 respectively. Of these, 10,194 institutions, with 593,431 pupils, were public. The total expenditure from all sources rose from £571,429 to £622,885. There were 10 Arts colleges, and 5 professional colleges, as in the year 1903–04, with a slightly increased total attendance of 3,768 students, of whom 694, including 44 women, were at the Grant Medical College. Technical schools and colleges generally showed an increased number of students. Secondary schools for boys rose by 4 to 428, while primary schools for boys increased from 8,452 to 8,691; the attendances in the two classes of schools being 46,352 and 474,549 respectively. The increase in the number of pupils is largely attributable to the smaller number of schools closed on account of plague, but even when allowance is made for this consideration, there is a satisfactory net increase. The total expenditure on secondary education for boys was £120,426, and on primary education £224,179. To these sums provincial revenues contributed £25,544 and £78,323 respectively. The total number of girls under instruction during the year was 87,894, of whom 82,141 were in primary schools, and 39,279 in the lowest stage. In Arts colleges and other special schools there were 409 female students, 259 of whom were in training schools. The total expenditure on female education rose from £61,627 to £81,855, the contribution from provincial revenues being £16,201. The number of Muhammadans under instruction was 139,324 as against 129,711 in the previous year. The Yeràvda Reformatory School contained 164 boys at the end of the year. The inspecting staff was increased during the year, and a special Inspector for European Schools was appointed. The Cambridge Local Senior Examination was held for the first time, and promises to be popular with some of the leading European schools. Liberal building grants were disbursed during the year, and the erection of good buildings for every class of school was greatly stimulated thereby. Perhaps the most important event of the year was the transfer of the school final examination from the University to the Education Department.

## LITERATURE AND THE PRESS.



| — | English. | Bi-lingual (English and another Language). | Sanskrit. | Arabic. | Persian. | Urdu. | Hindi. | Bengali. | Punjabi. | Marathi. | Gujarathi. | Tamil. | Telugu. | Burmese. | Kanarese. | Assamese. | Uriya. | Bi-lingual (Oriental) in a Classical and Vernacular Language. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Madras - | 424 | * | 114 | 4 | — | 5 | — | — | — | 2 | — | 335 | 233 | — | 24 | — | 15 | *Total number of Bi-lingual, 130. |
| Bombay - | 61 | * | 49 | | | 32 | 58 | — | — | 154 | 247 | — | — | — | 7 | — | — | *Total number of Bi-lingual, 95. |
| Bengal - | 242 | 183 | 39 | 1 | 2 | 28 | 140 | 916 | — | — | — | — | — | — | — | 37 | 194 | 203, mostly Sanskrit and Bengali. |
| United Provinces. | 95 | * | 88 | 21 | 36 | 451 | 567 | 9 | 1 | 4 | 1 | — | — | — | — | — | — | *Total number of Bi-lingual, 139. |
| Punjab - | 105 | * | 6 | 33 | 48 | 614 | 90 | — | 455 | 1 | — | — | — | — | — | — | — | *Total number of Bi-lingual, 89. |
| Burma - | 7 | 9 | — | — | — | — | — | — | — | — | — | 1 | — | 52 | — | — | — | 61 (Pali and Burmese). |
| Central Provinces. | — | 1 | — | — | — | 4 | 10 | — | — | 25 | — | — | — | — | — | — | — | 2 (Sanskrit and Hindi, and Sanskrit and Marathi). |
| Assam - | 1 | 2 | — | — | — | — | — | 1 | — | — | — | — | — | — | — | 16 | — | |
| Mysore - | 3 | — | — | — | — | 1 | — | — | — | — | — | 1 | — | — | — | — | — | |

*Note.*—The figures for Madras include 398 periodicals, and those for the Punjab 152 periodicals; in other Provinces books alone are shown.

The above table gives concisely the number of publications registered throughout India in European, Eastern classical and the principal Indian Vernacular languages. The number of bi-lingual and polyglot works, however, makes classification difficult. Other languages in which books were published were French, Italian, Malayalam and Sourashtra (in Madras); Gurmukhi and Javi (in Bombay); Mundari, Musalmani-Bengali, Angami-Naga, Mikir, Paite and Lushai (in Bengal); Balti, Gorkhali and Pashto (in the Punjab); Sgau-Karen, Pali and Kachin (in Burma); Konkani (in Madras and Bombay); Khasi (in Bengal and Assam); Nepali (in Bengal and the United Provinces); Tibetan (in Bengal and the Punjab); and Sindhi (in Bombay and the Punjab).

**Bengal.**

The number of publications received in the Bengal library during 1904 was 3,045, as against 2,887 in 1903. The increase was probably due to the revival of the practice of reporting cases of evasion of book-registration to the Inspector-General of Registration. Of the total number of publications received, 2,141 were books and 913 periodicals. Of the books, 1,922 were original publications, and 219 republications and translations. As regards language, Bengali claims a large majority of publications, English coming next. The output in Uriya and Hindi was also considerable. As in the previous year, religion was the most popular subject, being represented by 426 original publications, and 74 republications and translations. Language, poetry, fiction and history followed next in order, and science and drama were also fairly represented. The year was remarkable for several good biographies. Under the head of drama the literature falls as usual into four groups—translations, social, mythological and historical pieces. Translations included a dramatised version of Scott's *Lady of the Lake*, and adaptations of *Richard III.* and the *Midsummer Night's Dream*. Social and mythological dramas did not disclose any new features, and the interest of the drama of the year centres in the historical pieces, which derive their inspiration from Bankim Chandra's well-known novels and the teaching of the *Bhagavadgita* set forth in those novels. Their significance lies in the indications which they afford of the moral and political tendency of the educated classes. In fiction the influence of theosophy was most marked; the invisible agencies incidental to theosophy proved valuable allies to the average Bengali novelist, who is ever ready to indent on the supernatural. But the novels of the year, though they showed skill in depicting home life, did not display any great knowledge of the art of blending the unreal and ideal with the real and commonplace. Under educational topics may be mentioned Sir Gurudas Banerji's review of the Education Resolution of the Government of India, which discusses the problem of education as it presents itself to an Indian, and is a valuable contribution to the literature on the subject. The revival of interest in Sanskrit metres was a feature of the Bengali poetry of the year.

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United Provinces.

The total number of publications in the United Provinces was 1,588, of which 1,165 were original works. The subjects most in favour were poetry (355), religion (353), language (189), and fiction (107). The Hindi and Urdu publications of the year do not reveal any striking progress or change in the current of thought. Most of them bear on religious topics. The diffusion of western ideas, due to English education, has led to a struggle between the reformers and the more conservative spirits. On the side of the former were two Urdu translations of extracts from the speeches of Lord Curzon. On the other hand, a lamentable feature of the year's publicatons was the so-called "plague literature." The ideas propounded on this subject by Indian physicians were, with a few bright exceptions, such as could only serve to inflame the prejudices of the people against scientific measures taken to check the spread of the disease. Biographical works followed in the main the general religious tendency, and dealt with the lives of the great spiritual leaders. An exception is the life of Omar Khayyám by Abdul Nasur Ghulám Yasin, a good example of pure literary biography, and a valuable work, while a life of H.M. the King-Emperor is also well spoken of. Poetry and fiction did not rise to a high standard of merit.

Punjab.

The total number of books and periodicals catalogued in the Punjab during the year was 1,484, as against 1,478 in 1903. As usual, Urdu and Punjabi works largely predominated. Poetry continued to have the largest number of books, 455; religion, with 301, came next. Most of the works under the head of religion deal with the praises of saints and sages, prayers and ceremonies, and the like, and considerable energy is devoted to theological discussion. But there is a fairly large residuum of books of considerable merit. There was a marked improvement both in the number and in the quality of the books included under biography, and the kindred subject of history was represented by two works of great merit; the one a history of Muhammadan civilisation, translated from an Arabic treatise by a learned modern Egyptian, and the other the *Rise and Development of the British Empire in India*, by M. Zaka Ullah. The novel as a form of literature continues to be more and more popular, and, though from a literary point of view there is great room for improvement, there were some fairly well-constructed stories told in excellent language. The volume of verse annually published is enormous, and there are occasionally productions of some merit. Little can be said regarding the dramatic compositions of the year, which were, with a single exception, mere collections of stage songs, with little or no plot.

Madras.

The total number of publications registered in Madras was 1,210, a decrease of 7 on 1903. Religion (414) was again the favourite theme, while language (124) came second, and law (74) third. On the whole, the year's publications do not show any marked progress of thought or originality of conception on the part of Native authors in any branch of knowledge. Social reform, however, was again the dominant note of the literary work of the year. Fiction again did not maintain its level. The publications were fewer in number than in the previous year, and of less merit. Probably the best novel of the year was an unfinished tale entitled *Sarada*, by the late O. Chandu Menon, and mention should be made of a useful contribution to Indian literature entitled *Twelve Heroines of Shakespeare*, intended for the instruction and edification of Native ladies. A work of considerable interest and some originality was *The Tamils Eighteen Hundred Years Ago*, by V. Kanakasabhai, dealing with the ancient civilisation of the Tamils. Social reform, besides being the theme of many novels and dramas, formed the subject of some separate publications, among which *The Future of India*, by "Gautama," deserves mention. Among poetical and dramatic productions there were no works of any importance.

Bombay.

The total number of publications registered in Bombay was 1,279 as against 1,273 in 1903. The number of books was 756. Of these, 61 were written in English, 247 in Gujarathi, and 154 in Marathi. Poetry (203) and religion (148) were the most popular subjects. Fiction increased from 48 to 50. Drama included a Hindi version of the *Merchant of Venice* and a Marathi rendering of the *Midsummer Night's Dream*. Plays on social

subjects were curiously rare, the nearest approach to this genre being an Urdu version of Lytton's *Night and Morning*, and a Marathi play protesting against the extortion of excessive dowries and the delay of marriage pending their receipt. Fiction calls for no special notice, and, as a whole, the poetry of the Presidency does not appear to have made any advance or to have opened out any new paths of song during the year under review. Under the head of 'Art' two Marathi books on Indian music may be noted, which are of importance in that they denote the rise of a more intelligent interest in traditional music, and a desire to utilise it for practical educational purposes. Under the head of 'Medicine' two books in Marathi on *Home Nursing* and *First Aid*, by Dr. Gokhale, are worthy of mention as bearing witness to a desire to extend the use of European methods of therapeutics. Lastly, an excellent specimen of 'nature writing' and sporting biography may be noticed, written in English by an Englishman and entitled *Leaves from an Indian Jungle*. LITERATURE.

In Burma 146 publications were registered, of which 'religion' claimed 86 and 'language' 13. As regards language, Pali-Burmese with 61 and Burmese with 52 books were predominant. Assam produced altogether 21 books as against 6 in the previous year. The publications in other provinces call for no comment; in Coorg none was registered. Other Provinces.

# CHAPTER XIV.

## EMIGRATION AND MIGRATION.

### EMIGRATION.

EMIGRATION. Emigration from India, so far as it is brought under the cognisance of Government, is mainly regulated by Act XXI. of 1883 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government in East and Central Africa, is, however, excepted from the restrictions of the Act. By Section 8 of this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of Indian immigrants. A similar protection was extended by Act X. of 1902 to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. The Local Government is now empowered, before permitting such emigration, to impose such terms and conditions as it considers necessary in each case. Emigration otherwise than under contract to labour or work in one of the above capacities is not controlled by legislation.

An Act called the Indian Emigration (Amendment) Act XII. of 1904, was passed on the 9th October 1904 in the Imperial Legislative Council, empowering Local Governments to direct payment of such fees as they think fit before sanctioning the engagement for emigration of a native of India under Act X. of 1902 referred to above, and providing that, for the purposes of the application of that Act, the Governor General in Council may specify any port other than those from which emigration under Act XXI. of 1883 is lawful, and that Local Governments may appoint an officer for performing the functions of the Protector of Emigrants in such port. The only other important administrative measure of the year was the framing of rules with a view to safeguarding healthy emigrants returning to India from infection by emigrants who have contracted tuberculosis.

Calcutta. There were six emigration agencies at work during the year at Calcutta, five representing British Colonies, and one the Dutch Colony of Surinam. The total number of labourers requisitioned fell from 9,893 in 1903 to 7,501 in 1904. The number sent during the year was 6,901; but as 1,030 emigrants were supplied in 1904 to meet requisitions made in 1903, there was an actual deficit of 1,630 for the year, as against a deficit of 1,099 in 1903. This further shortage is attributed to the prevalence of plague, the good harvests of the two previous years, and the increased demand for local labour. No labour was demanded by or supplied to Jamaica. The number of recruiting licences granted was 1,146, as compared with 1,370 in 1903, and of these 47, or 4·10 per cent. of the whole, were subsequently cancelled. The recruiters, who conducted their operations in the same places as in the preceding year, collected altogether 10,286 emigrants during the year. This number was contributed by the different provinces in the following proportions:—United Provinces, 72·9 per cent.; Central Provinces, 8·8 per cent.; Punjab, 5·9 per cent.; Bengal, 5·2 per cent.; Bihar, 6·4 per cent.; Ajmere, ·62 per cent.

The number of emigrants admitted to the Calcutta depôts was 10,535. Of the remainder, 1,213 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts was ·22 as compared with ·26 in the preceding year, and the percentage of rejections decreased from 8 to 7·3. The percentage of desertions, however, remained almost the same as in the previous year, being 3·00 as against 3·01 in 1903. After deducting casualties of all kinds, there remained 6,957 emigrants available for despatch to the colonies, of whom 6,901 were shipped during the year, as against 9,084 in the previous year. They were distributed as follows: Demerara, 1,299; Trinidad, 1,196; Mauritius, 1,404; Natal, 1,638; Fiji, 1,124; Surinam, 238. The total number shipped included 1,866 women and

304 returned emigrants who re-emigrated. The death rate on the ships carrying emigrants was ·32 per cent., 2 out of the 21 deaths which occurred being due to cerebro-spinal fever, and the rest to chest affections and other diseases. EMIGRATION.

The number of emigrants who returned from the several colonies was 4,377, and their ascertained aggregate savings amounted to upwards of £50,941. The average savings per head varied from £20 in Fiji, to £1 15*s.* in Mauritius. But 691 adults—15·7 per cent. of the total number of returned emigrants—brought back no savings.

The amounts remitted to India by emigrants resident in the colonies again indicated a high degree of prosperity among the Indian population in Natal, although the average remittance per emigrant (£1 2*s.*) was not quite so high as in the year 1903. Fiji was the only other colony where the average remittance per emigrant (Re. 1.4.9, or about 1*s.* 8*d.*) exceeded one rupee.

The numbers of emigrants embarking from Madras for Natal and Mauritius respectively were 6,387 and 625, as compared with 2,544 and 510 in 1903–04, while 155 were shipped for the Seychelles. The great increase in the number of coolies sent to Natal is attributed to more active recruiting and the unfavourable character of the season in Madras. The bulk of the emigrants came from the North Arcot, Madras, and Malabar districts. There was no emigration to the French colonies during the year. One thousand one hundred and four emigrants returned from Natal with savings amounting to £14,186, and 262 returned from Mauritius with £472. Madras.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements increased from 22,960 to 28,249, most of whom started from ports in the Tanjore district. There was a continued increase in the number of passengers to Burma and Ceylon, but it was impossible to distinguish emigrants from ordinary passengers.

The emigration from the Coast districts to South Africa has been considerably checked by the restrictions now imposed. About 1,300 persons are estimated to have emigrated from Surat to Burma and South Africa. Nine registered emigrants left Bombay during the year for Dar-es-salám, under agreement to work for the Government of German East Africa for three years. During the year 396 emigrants, being time-expired men from the Uganda railway, returned to Bombay, from Mombassa. Ninety-seven workmen left Karachi for service on the Uganda railway under agreement. Bombay.

## MIGRATION.

MIGRATION.

Assam imports from the other provinces of India the greater part of the labour force employed on tea-gardens, in the oil refinery at Digboi, in coal-mines, and in a few saw-mills in Upper Assam. The total labour population directly dependent on these industries numbered 664,296 at the end of June 1905, the year for which labour statistics are tabulated now ending at this date. The number of labourers engaged under Act VI. of 1901 was 79,983, while 584,313 were classed as "non-Act" labourers. Of the total labour force in the province 60·89 per cent., including almost all of the "Act" labourers, were employed in the Assam valley, and the remainder in the Surma valley. The general rate of immigration increased during the year but to no very great extent, and labour continued to be exceedingly scarce. The total number of labourers and dependants imported during the year was 24,209, as against 22,162 in 1903–04. There was an increase in the number of immigrants from the plain districts of the United Provinces and Bengal, and from Chota Nagpur and the Sonthal Parganas, but the increase was entirely of non-Act coolies, those imported under the Act showing in both cases a decrease. The tendency to abandon Act VI. of 1901 as a basis of labour contracts in favour of agreements enforceable under Act XIII. of 1859 was maintained; at the end of the year less than a fifth of the adult labour force of the Province was indentured under Act VI. Assam

Of the 7,064 adults imported during the year under the Act, 4,196 were recruited by sardars and 2,868 by contractors. During the year the Government of Bengal and the Administration of the Central Provinces consented to

MIGRATION. many important changes in the depôt and transit rules with a view to freeing the journey to Assam from the conditions which involved loss of caste, and were a serious impediment to the engagement of coolies by sardar agency.

The mortality among coolies during the journey to Assam was insignificant. The number of deaths was only 16, of which 8 were due to cholera.

Coolies travelling to the Brahmaputra Valley made use of one of the two railway routes *viâ* Dhubri or *viâ* Chandpur and Tinsukia. Most of the immigrants to the Surma Valley were conveyed by the Assam-Bengal railway. Of 3,056 coolies imported into Sylhet, only 882 passed through the river depôts, while out of 1,816 coolies travelling to Cachar, 1,008 were imported by railway and 808 by steamer.

The number of complaints of fraud and irregularity in recruitment rose from 64 to 75. Lakhimpur still shows the greatest number of cases (30). Of the 75 cases, fraud or irregularity was proved in 40.

The registered rate of mortality fell from 24·0 to 22·9 per mille. There was uniform improvement in the death-rate of coolies from all recruiting areas. But amongst Central Provinces coolies mortality was still excessive (35·69 per mille) and is probably due to the change of diet which coolies from that province experience on coming to Assam. The number of cases recorded of complaints laid by coolies against managers of ill-treatment unconnected with re-engagement fell from 103 to 18, but in the preceding year the number of cases was abnormal owing to the fact that 70 arose out of a single incident in the Cachar district. Miscellaneous complaints filed by coolies increased from 87 to 213, and 562 applications for discharge certificates were made. There was a decrease of serious crime in cases of violence on the part of coolies, and there was a fall from 2,960 to 2,733 in the number of desertions.

Central Provinces. The number of inland emigrants recruited in the Central Provinces continued to fall. Of the 2,708 emigrant labourers, 1,736 were males and 972 females, and they were accompanied by 778 dependants. In the previous year 3,367 emigrants were recruited as labourers, and they took with them 1,026 dependants. The decrease is ascribed chiefly to the rapid recovery of the agricultural population from the effect of the recent scarcity and to the natural reaction against the forced activity shown in famine years.

Burma. The number of immigrants at the various ports during the year was 182,721 and of emigrants 125,215. At Akyab there was an exodus of harvesters, ploughmen, and mill hands to Chittagong, but, on the whole, the figures represent a large permanent, or semi-permanent, addition to the population of the Province.

Madras. The number of passengers arriving at the several ports of the Madras Presidency during the year was 252,248, of whom 129,390 came from Ceylon and 83,721 from Burma.

Bombay. There was practically no movement of people into the Bombay Presidency beyond the ordinary influx of temporary labourers for the yearly harvests, which is most marked in Sind. The seasonal emigration of labourers from Satara to Bombay for work in the mills and dockyards was estimated roughly to reach 13,700. Similarly, over 30,000 people left the Poona District after the close of the rainy season in search of work, the majority going to Bombay.

# CHAPTER XV.

## TRADE AND MANUFACTURES.



*(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)*

### TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1905, was valued as follows :—

| — | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|---|---|
| BY SEA. | £ | £ | £ | £ | £ |
| Private Imports : | | | | | |
| Merchandise - - | 50,851,923 | 54,345,986 | 52,525,272 | 56,548,862 | 64,452,192 |
| Treasure - - | 10,975,739 | 13,098,920 | 16,837,152 | 21,295,508 | 22,018,353 |
| | 61,827,662 | 67,444,906 | 69,362,424 | 77,844,370 | 86,470,545 |
| Private Exports : | | | | | |
| Foreign Merchandise re-exported - - | 2,139,021 | 2,173,211 | 1,957,075 | 2,217,006 | 2,248,396 |
| Indian Merchandise - | 69,440,332 | 80,803,375 | 83,919,834 | 99,756,049 | 102,752,000 |
| Treasure - - | 4,982,970 | 5,641,711 | 5,873,341 | 5,432,915 | 5,317,710 |
| | 76,562,323 | 88,618,297 | 91,750,250 | 107,405,970 | 110,318,106 |
| Government Transactions: | | | | | |
| Imports { Stores - | 3,077,803 | 4,841,047 | 4,687,504 | 5,179,320 | 5,156,305 |
| Imports { Treasure - | 5,408,769 | 635,304 | 82,085 | 4,388,564 | 4,320,430 |
| Exports { Stores - | 233,024 | 286,941 | 387,490 | 371,718 | 138,472 |
| Exports { Treasure - | 4,501,960 | 2,005,529 | 565,084 | 4,596,339 | 5,634,834 |
| | 13,221,556 | 7,768,821 | 5,681,805 | 14,535,941 | 15,250,041 |
| Total Trade by Sea - | 151,611,541 | 163,832,024 | 166,834,837 | 199,786,281 | 212,038,692 |
| BY LAND. | | | | | |
| Imports - - | 4,732,864 | 5,167,462 | 4,580,733 | 5,193,860 | 5,669,814 |
| Exports - - - | 4,380,463 | 4,405,609 | 3,870,514 | 3,964,335 | 4,555,041 |
| Total Trade by Land | 9,113,327 | 9,573,071 | 8,451,247 | 9,158,195 | 10,224,855 |
| Excess imports of treasure by sea - | 6,899,578 | 6,086,984 | 10,480,812 | 15,654,817 | 15,386,239 |
| Net excess of exports over imports of merchandise and treasure by sea, private and Government - - | 10,983,073 | 17,989,510 | 18,570,811 | 24,961,774 | 20,144,132 |
| India Council Bills paid in India - - - | 12,824,491 | 18,535,842 | 18,724,021 | 23,874,459 | 24,150,029* |

* As in previous years, the amount actually paid during the year in India is given in pounds, at Rs. 15 to the pound. The figures for the four last years include sums of £1,939,093, £263,000, £2,200,000, and £700,396, respectively, drawn against the Gold Reserve Fund. The Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1904–05 yielded £24,425,558, the average rate being 1s. 4·045*d.* per rupee.

Foreign seaborne trade.

The total seaborne trade was, it will be observed, 6·1 per cent. greater than that of the previous year, 1903–04. Putting aside the Government

TRADE. transactions, the private trade in merchandise and treasure amounted to £196,789,000, which is 6·2 per cent. above the 1903–04 figure, itself 15 per cent. greater than any previously recorded. If from this the imports and exports of treasure are omitted, there remains a total of £169,453,000 as the value of the private merchandise trade, showing a rise of 7 per cent. above the high figures of the preceding year, imports having increased by 14 per cent., while exports were 3 per cent. higher. The great growth in exports which occurred in the year 1903–04 was thus balanced in the year under report, and the figures of the private merchandise trade for 1904–05, when compared with those of the year 1902–03, show an increase of about the same amount, viz., nearly 23 per cent., both in exports and in imports.

Imports. In no other year has the increase in the value of imports been so large; but some part of it was caused by higher prices, notably in the case of cotton goods, in which, two millions out of the increase of 4⅔ million pounds is thus accounted for. But, in addition to this cause, the import of cotton manufactures received a great impulse from the revival of the Lancashire trade consequent on the good American cotton crop; confidence being restored, the attenuation of the stocks resulted in an active demand in India. The next most noteworthy increase was in the sugar imports. The trade was practically exempt from legislative restrictions throughout the year, and there was a recovery in the imports of beet sugar, and a great expansion in the amount of cane sugar received from Java, as shown in Chapter X. above, though in this case also the rise in prices makes the increase in their value disproportionately large. There was a decline in the mineral oil imports, owing to the rapid development of the Burma oil industry. The only other decline among the principal articles mentioned below was in respect of aniline and alizarine dyes; all other heads showing a more or less substantial advance. It is to be borne in mind that, owing to the large and increasing number of railways owned by the State, the imports of railway material fall largely outside the table, which includes only private merchandise. If the Government imports are included, the value of railway material imported was £3,742,000, which is slightly less than the figure for 1903–04, but much larger than that for the preceding year.

| Imports. | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Cotton woven goods | 18,231,000 | 20,165,000 | 18,766,000 | 19,246,000 | 23,706,000 |
| Cotton yarns | 1,659,000 | 1,765,000 | 1,532,000 | 1,428,000 | 1,658,000 |
| Silk, raw and manufactured | 1,788,000 | 1,530,000 | 1,456,000 | 1,618,000 | 1,902,000 |
| Woollen goods | 1,408,000 | 1,313,000 | 937,000 | 1,440,000 | 2,051,000 |
| Metals | 4,288,000 | 4,599,000 | 5,331,000 | 6,197,000 | 6,213,000 |
| Hardware and cutlery | 1,163,000 | 1,057,000 | 1,248,000 | 1,468,000 | 1,586,000 |
| Machinery and millwork | 1,505,000 | 2,004,000 | 1,869,000 | 2,235,000 | 2,685,000 |
| Railway material | 894,000 | 1,028,000 | 1,074,000 | 935,000 | 940,000 |
| Liquors | 1,078,000 | 1,110,000 | 1,180,000 | 1,218,000 | 1,249,000 |
| Provisions | 1,317,000 | 1,323,000 | 1,227,000 | 1,352,000 | 1,444,000 |
| Sugar | 3,770,000 | 3,933,000 | 3,303,000 | 3,957,000 | 4,602,000 |
| Mineral oils | 2,305,000 | 2,558,000 | 2,310,000 | 2,255,000 | 2,217,000 |
| Chemicals, medicines, dyes | 1,230,000 | 1,306,000 | 1,333,000 | 1,503,000 | 1,492,000 |
| Apparel | 1,027,000 | 1,129,000 | 1,188,000 | 1,331,000 | 1,493,000 |

TRADE.

Exports of Indian Merchandise.

The re-exports of foreign merchandise do not call for notice. Among the chief items of export of Indian merchandise, detailed below, there are several that witness to the general agricultural prosperity of the year, though in some other instances the increase in the quantities is veiled by the decline in prices. The decline of the value of raw cotton exports to a much lower, though still satisfactory figure, was due to the return of prices to a lower level. The total value of oilseeds exported declined, in spite of an unprecedented volume of trade; and the same is true of the tea exports. The contrary was the case in respect of cotton yarns, a rather smaller quantity being valued at a considerable higher sum, owing to the higher prices still ruling for yarns. The quantity and value of cotton piece goods exported both showed a notable increase, and the mill industry was in the full tide of prosperity at the close of the year. The exports of raw jute were rather smaller in quantity, but a remarkable rise in price towards the end of the year caused the value to exceed that shown for 1903–04. The jute mills continued to expand their production in spite of the high prices of the raw material.

| Exports of Indian Produce. | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| Raw cotton | 6,752,000 | 9,617,000 | 9,838,000 | 16,251,000 | 11,623,000 |
| Cotton yarns | 2,780,000 | 6,211,000 | 5,693,000 | 5,894,000 | 6,544,000 |
| Cotton piece goods | 1,022,000 | 1,032,000 | 978,000 | 1,087,000 | 1,218,000 |
| Raw jute | 7,245,000 | 7,865,000 | 7,418,000 | 7,812,000 | 7,977,000 |
| Jute manufactures | 5,243,000 | 5,808,000 | 6,013,000 | 6,313,000 | 6,626,000 |
| Wool, raw | 602,000 | 529,000 | 777,000 | 918,000 | 1,261,000 |
| Rice and rice flour | 8,813,000 | 9,280,000 | 12,597,000 | 12,723,000 | 13,071,000 |
| Wheat and wheat flour | 259,000 | 2,418,000 | 3,321,000 | 7,746,000 | 12,399,000 |
| Oilseeds | 6,009,000 | 11,186,000 | 9,922,000 | 9,677,000 | 9,607,000 |
| Tea | 6,367,000 | 5,433,000 | 4,908,000 | 5,705,000 | 5,644,000 |
| Coffee | 819,000 | 833,000 | 881,000 | 912,000 | 1,107,000 |
| Opium | 6,304,000 | 5,682,000 | 5,345,000 | 6,980,000 | 7,082,000 |
| Indigo | 1,424,000 | 1,235,000 | 804,000 | 717,000 | 556,000 |
| Hides and skins | 7,655,000 | 5,487,000 | 5,623,000 | 5,957,000 | 6,604,000 |

Trade by countries.

The proportion of the total trade in merchandise on private account which was carried on with European countries was 66·5 per cent., which is fractionally more than in 1903–04. The exports to Egypt are now classified, not under Egypt, but under the countries to which the goods are ultimately consigned; but a small share of the trade with America is still credited to Europe and Asia, and the returns do not profess to give in all cases the real trading interests of various countries, though this is done as far as possible. From the figures as they stand, the trade with the United Kingdom in 1904–05 appears as 62·8 per cent. of the whole private merchandise trade with Europe; and it constituted 41·8 per cent. of the total trade in merchandise on private account. The proportion of the trade which is assignable to the British Empire cannot be stated except in a misleading form, since the figures for the Straits Settlements and Hong Kong, which are chiefly distributing centres, are very important items, and most of this trade is reshipped to foreign countries. It may, however, be remarked that, of the other Colonies, apart from Ceylon, Australia took by far the largest amount of Indian produce (value £913,400), and that Australian imports into India (value £541,600) are also much larger than those of any other colony, Mauritius only being excepted.

TRADE. The value of India's trade in private merchandise with some of the chief countries, imports and exports combined, has fluctuated as follows in the last six years :—

| —— | 1899–1900. | 1900–01. | 1901–02. | 1902–03. | 1903–04. | 1904–05. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| United Kingdom | 53,645,000 | 53,806,000 | 55,705,000 | 56,442,000 | 64,204,000 | 70,784,000 |
| France - - | 5,127,000 | 4,750,000 | 6,848,000 | 7,047,000 | 7,650,000 | 7,576,000 |
| China - - | 10,541,000 | 9,597,000 | 12,986,000 | 12,128,000 | 13,360,000 | 14,420,000 |
| Germany - | 6,144,000 | 7,882,000 | 8,810,000 | 8,225,000 | 11,827,000 | 12,026,000 |
| Straits Settlements. | 5,157,000 | 6,273,000 | 5,997,000 | 6,731,000 | 6,581,000 | 6,340,000 |
| United States - | 5,907,000 | 5,655,000 | 6,379,000 | 6,499,000 | 6,890,000 | 7,478,000 |
| Russia - - - | 1,683,000 | 2,059,000 | 2,266,000 | 2,064,000 | 2,191,000 | 1,504,000 |
| Austria-Hungary | 2,733,000 | 3,904,000 | 4,216,000 | 3,847,000 | 4,692,000 | 5,804,000 |
| Belgium - - - | 3,514,000 | 3,994,000 | 5,161,000 | 5,371,000 | 7,317,000 | 7,946,000 |
| Italy - - | 2,336,000 | 2,630,000 | 2,610,000 | 2,836,000 | 3,959,000 | 3,695,000 |
| Ceylon - - | 3,273,000 | 3,799,000 | 3,663,000 | 3,489,000 | 3,608,000 | 3,823,000 |
| Japan - - | 4,571,000 | 1,958,000 | 5,118,000 | 4,446,000 | 6,494,000 | 7,279,000 |

It may still be noted that much of the trade attributed to Belgium belongs to Germany.

Provinces and Ports. The following figures show the proportionate share of each province and of the five chief ports in the private trade with foreign countries in merchandise only :—

| —— | Imports (percentages). | | | Exports (percentages). | | |
|---|---|---|---|---|---|---|
| | 1902–03. | 1903–04. | 1904–05. | 1902–03. | 1903–04. | 1904–05. |
| PROVINCES : | | | | | | |
| Bengal - - - | 41·7 | 39·7 | 39·9 | 41·8 | 39·2 | 40·9 |
| Bombay and Sind - - | 41·6 | 41·7 | 42·1 | 36·0 | 40·5 | 39·4 |
| Madras - - - | 9·1 | 8·9 | 8·8 | 10·2 | 9·9 | 9·4 |
| Burma - - - | 7·6 | 9·7 | 9·2 | 12·0 | 10·4 | 20·3 |
| | 100 | 100 | 100 | 100 | 100 | 100 |
| CHIEF PORTS : | | | | | | |
| Calcutta - - - | 41·5 | 39·5 | 39·7 | 40·4 | 37·4 | 38·9 |
| Bombay - - - | 35·0 | 35·9 | 34·1 | 29·8 | 31·9 | 28·0 |
| Karachi - - - | 6·6 | 6·5 | 8·0 | 6·2 | 8·7 | 11·4 |
| Madras - - | 7·7 | 7·2 | 7·3 | 3·7 | 3·3 | 3·2 |
| Rangoon - - - | 7·4 | 9·5 | 9·0 | 9·0 | 8·3 | 8·2 |

The value of the imports into Bombay and Sind was greater by four millions sterling than in 1903–04, and the value of the exports was almost the same as in that year; but the large expansion of the Bengal trade makes the share of the western province in the export trade proportionately less. A notable feature disclosed in the table is the rapid growth of the export trade of Karachi. Calcutta was in the year under report still further ahead of the port of Bombay, the former possessing £66,452,000 in 1904–05 and the latter £51,406,000 as the total value of their export and import trade in merchandise.

Treasure. Rather more than half the trade in treasure passed through the port of Bombay. The net imports of treasure were £15,386,000, or £268,000 less than those of the previous year. If the out-turn of the Indian gold mines be included in the calculation, the value of the precious metals retained in India during 1904–05 is £17,753,000, or in the two past years together no less than £36,368,000. These two years have, therefore, shown a very exceptional absorption of gold and silver in India. The balance of trade, or excess of seaborne foreign exports over imports of merchandise and treasure, both on Government and private account, was, as above stated, £20,144,000, or more than 19 per cent. below the figure of 1903–04.

TRADE.

Land trade.

The trade across the land frontiers is relatively small, but it is progressive, and during the last ten years the grand total of the registered imports and exports of merchandise and treasure has increased by 66 per cent. The gross totals of imports and exports together, including treasure, for the last five years are given in the margin. Trade along the Nushki-Seistan route remained at a low figure, but is expected to improve when the railway is opened to Nushki; its value for the year was £36,700. Trade with Dir, Swat, and Bajaur continued to improve, and there was a satisfactory growth in the trade with Afghanistan. The most important item is the trade with Nepal, the value of which is given as £2,664,000 in 1904–05, which does not show any pronounced increase. The figures given under the heading of land trade include trade with tracts like Kashmir and the Shan States, much of which can hardly with exactness be called trans-frontier trade. The Shan States are British territory administered under local chiefs. The trade with the States has shown a satisfactory development in recent years. Taking the frontier trade as a whole, the chief items were, among imports, grain and pulse, chiefly rice, to a value of £984,200, and timber (value £633,000), and, among exports, cotton goods (value £1,695,000).

| | £ |
|---|---|
| 1900-1901 | 9,113,000 |
| 1901-1902 | 9,573,000 |
| 1902-1903 | 8,451,000 |
| 1903-1904 | 9,158,000 |
| 1904-1905 | 10,225,000 |

Coasting trade.

The combined import and export trade in merchandise and treasure carried on by coasting vessels is said to have represented a value of £28,400,000 during 1904–05, which is 6·5 per cent. more than the trade of 1903–04. This figure is calculated by adding to the value of the imports into British ports from other British ports the sum of the imports and exports in the trade between British and non-British ports. The only remarkable improvements were in the exports of mineral oils from Burma, of gunny bags from Calcutta, of the produce of the Bombay cotton mills, and of Bengal coal.

## MANUFACTURES.

MANUFACTURES.

Cotton mills.

There were at the end of the year 1904–05 in British India and Native States 203 cotton mills containing 47,300 looms and 5,196,400 spindles, and giving employment on an average to 196,400 persons every day. Of these, 109 were exclusively spinning mills, five were exclusively weaving mills, and in the rest both spinning and weaving were carried on. The capital invested, including an estimate for ten companies, worked by private proprietors, for which accurate returns are not available, was £10,640,000 (paid-up capital and debenture loans). The industry is located, as regards 70 per cent. of the mills, in the Bombay Presidency, while there are 19 mills in the territory of Native States and in French possessions in India.

The out-turn of yarn in recent years in British India, excluding the mills in Native States or foreign territory, is shown in the marginal table. The great decline in the low-count yarns in 1900–01 was due partly to the famine in India, which impaired the purchasing power of the people at the same time that it raised the price of raw material, and partly to the collapse of the Chinese market, which in turn was caused by over-supply from India and Japan, and by the political and military events in China. In 1901–02, with the passing away of these causes of depression, and a reduction in the prices of raw cotton following on larger crops, the mills resumed operations with great activity, but the high price of the yarn in the year 1903–04 made profitable business difficult, so that several mills either closed or worked short time. The latter half of the year under report, however, saw a complete revolution of the conditions affecting the spinning industry, caused by the fall in the price of raw cotton and the large off-take of the principal markets, so that, to meet the forward contracts, all the spindles had to be brought into full use, and a state of unusual financial prosperity was created. The mills of the Bombay

| — | Counts Nos. 1 to 25. | Above No. 25. | Total. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| 1899-1900 | 481,009,800 | 20,675,400 | 501,685,200 |
| 1900-01 | 315,310,400 | 27,467,100 | 342,777,500 |
| 1901-02 | 527,448,600 | 32,556,200 | 560,004,800 |
| 1902-03 | 523,565,000 | 35,247,000 | 558,812,000 |
| 1903-04 | 515,203,400 | 40,987,400 | 556,190,800 |
| 1904-05 | 510,075,100 | 45,873,300 | 555,948,400 |

MANUFACTURES.

Presidency produced nearly 76 per cent. of the yarn, Bengal 7 per cent., Madras 5 per cent., the United Provinces about 5 per cent., and the Central Provinces 4·7 per cent. The production of yarns of counts above 25*s.* continued to increase, and the Bombay mills spun an appreciable quantity (10 per cent. of their output in 1904–05) of these higher counts. The out-turn of finer yarns, 31*s.* to 40*s.*, in Indian mills increased from 11 millions of pounds in 1900–01 to 16¼ millions in 1903–04, and to 17 millions in 1904–05. The Bombay mills also spun an appreciable quantity of yarns of No. 40 and upwards, using Egyptian or other imported cotton.

The weaving mills were less affected than the spinning mills by the high price of cotton in 1903–04, since there was a considerable advance in the price of cloth, and both the home and the foreign demand was good; and in 1904–05 these high prices were still realised when the price of raw cotton had fallen to normal levels. There was, therefore, a substantial increase in their production in each year, as shown in the marginal table. The Bombay mills produced 86 per cent. of the total in 1904–05; there is hardly any weaving done by factories in Bengal; Madras and the Central Provinces each contributed about 4 per cent. of the woven goods, and the Central Provinces 5 per cent. These goods are mainly unbleached grey fabrics; only in Madras did any very large proportion of the weaving consist of finer goods, and there these fabrics constituted 49 per cent. of the production. It is to be observed, however, that there is a very decided tendency to increase the output of the finer classes of goods, which stood at 28⅓ millions of pounds in 1904–05, or more than 12 per cent. in advance of the previous year's figures, this class of goods having increased in a greater proportion than grey goods.

| — | Grey. | Other Kinds. | Total. |
|---|---|---|---|
| | Lbs. | Lbs. | Lbs. |
| 1899-1900 | 82,028,400 | 13,291,900 | 95,320,300 |
| 1900-01 - | 79,583,100 | 16,261,500 | 95,844,600 |
| 1901-02 - | 96,210,200 | 19,756,000 | 115,966,200 |
| 1902-03 - | 95,645,500 | 21,639,100 | 117,284,600 |
| 1903-04 - | 106,515,100 | 25,361,100 | 131,876,200 |
| 1904-05 - | 124,363,200 | 28,378,600 | 152,741,800 |

The out-turn of mills in the Native States is given as follows:—1903–04, yarn 22,568,300 lbs., woven goods 6,167,900 lbs.; 1904–05, yarn 22,432,800 lbs., woven goods 6,004,700 lbs.; the small production in the Berar mills is now included in the British India figures.

Jute mills.

The number of jute mills in 1904–05 was 38, containing 19,991 looms and 409,170 spindles, and employing a daily average of about 133,100 persons. All the mills, with the exception of one at Cawnpore and one in the Madras Presidency, are in the province of Bengal, and most of them are in the vicinity of Calcutta. The capital employed by these mills, excluding one which had not reported its capital, was £6,538,400, including debentures issued; of which nearly 2½ millions is sterling capital. The producing capacity of the mills and the capital employed have nearly doubled in the last decade. The sterling capital has increased by 76 per cent. and the rupee capital by 71 per cent. The reports do not include statements of the out-turn of the mills, but the statistics given above in the Trade section of this chapter show a steadily increasing export trade in jute manufactures.

Woollen mills.

There were six woollen mills at work at the end of 1904, containing 737 looms, and 25,931 spindles, employing 3,468 persons, and producing goods valued at £245,000 in the year. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police, and an admixture of Australian wool is used. There is not much demand in India for woollen goods except for descriptions which could hardly be made profitably in India in competition with European mills, and any large expansion of the industry can hardly be expected. There are in various places factories for the weaving of carpets and rugs, but though these industries are in the aggregate extensive they are individually small, and the weaving is done in hand-looms.

Paper mills.

There were eight paper mills at work in India, employing a daily average of 4,266 hands, and producing in 1904 about 45 million lbs. of paper, valued at £410,000. Most of the foolscap, blotting paper, notepaper, and envelopes used in Government offices is now obtained from the Indian mills; but there has been a depression in the paper-making industry in Bengal in recent

years, owing to the importation in large quantities of cheap paper made from wood pulp, which is of more attractive appearance, if less durable, than paper made from grass, gunnies, and rags in the Bengal mills. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. MANUFACTURES.

In 1904 there were 27 breweries at work, which produced during the year 6¼ million gallons of beer and porter. The Commissariat Department bought nearly half of this malt liquor for the use of European soldiers, and the rest is consumed also mainly by Europeans, soldiers or civilians. The largest brewery is at Murree in the Punjab Himalayas, and the output of that concern was rather less than a million gallons. The quantity of beer, porter, and cider imported into India was 4,606,800 gallons in 1904–05, or about three-quarters of the quantity produced in the country. Breweries.

There are a large number of cotton spinning factories or presses, indigo factories of all sizes and kinds, iron and brass foundries, &c. scattered throughout the country, which are enumerated more or less roughly in the annual returns. But nothing illustrates better the present state of industrial development in India than the fact that, after the cotton and jute industries, and apart from the railway workshops, which employed 67,600 people, and from the domestic and indigenous industries, the only factory industries which employ more than 20,000 people, according to the returns, are those connected with the first stages in the preparation of raw material for the market. In the preparation of agricultural staples, employment is found for large numbers; indigo factories, for instance, employed over 123,000 workers; cotton ginning, cleaning, and pressing mills over 85,000; jute presses, 24,000; rice mills, 17,800. But of other manufacturing industries the most important, after cotton and jute mills, are the iron and brass foundries (24,300 workers), printing presses (14,400), tile factories (13,800), silk filatures (9,500), dockyards (10,500), and others of still less importance. It must not, however, be forgotten that the returns upon which these figures are based are in most cases of very doubtful value. Omitting these untrustworthy returns of the minor industries, the following table gives some particulars as to employment in the industries separately noticed above, and in coal mines in British India:— Other industries.

| | Average daily Number of Employés. | | | |
|---|---|---|---|---|
| | Men. | Women. | Children and young Persons. | Total. |
| Cotton mills (figures for 1904–05) - | 127,607 | 37,728 | 30,649 | 196,364* |
| Jute mills ( „ „ ) - | 89,288 | 21,899 | 21,975 | 133,162 |
| Woollen mills ( „ 1904) - - | — | — | — | 3,468 |
| Paper mills ( „ „ ) - | — | — | — | 4,266 |
| Coal mines ( „ „ ) - | 55,451 | 23,784 | 2,767 | 82,002 |

* Details defective.

The average number of men, women, and children shown in a table below to have been employed in 1904 in the factories coming under the Factories Act is 587,560. If to these be added the figures given in the report of the Chief Inspector of Mines, relating to all mines coming under the Mines Act, namely, 107,382, a total of 694,942 results. The total number of workers in large industries given in the report on the census of 1901 was 688,352, but these figures, having been compiled on an entirely different basis, do not admit of accurate comparison.

The progress of the agricultural industries, such as the tea industry and the indigo industry, and also that of the coal industry, has been noticed in the chapter on agriculture and mineral resources, as is the usual practice in these annual Statements.

FACTORIES ACT.

## FACTORIES ACT.

The law respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter into the previous law were, briefly:—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours, and their employment at night-time was forbidden;

The hours of actual labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day, with intervals amounting to 1½ hours;

A rest period during work was prescribed for all labourers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1904.

| PROVINCE. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents Reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted from Sunday Stoppage. | | Fatal. | Serious. | Minor. | Total. |
| Bengal - - - | 261 | 187,208 | 26,549 | 20,998 | 234,802 | 151 | 9 | 91 | — | 28 | 292 | 401 | 721 |
| United Provinces - | 131 | 34,480 | 3,491 | 2,055 | 40,026 | 105 | 24 | 2 | 6 | 21 | 59 | 49 | 129 |
| Punjab - - - - | 191 | 21,300 | 3,293 | 963 | 25,556 | 125 | 50 | 11 | 4 | 11 | 25 | 153 | 189 |
| North West Frontier Province. | 2 | 37 | 23 | — | 60 | 2 | — | — | — | 1 | — | — | 1 |
| Burma - - - | 188 | 33,973 | 783 | 214 | 34,970 | 182 | 1 | 5 | — | 7 | 80 | 74 | 161 |
| Central Provinces and Berar. | 155 | 14,685 | 7,547 | 1,587 | 23,819 | 65 | 89 | 1 | 4 | 1 | 32 | 38 | 71 |
| Madras - - - - | 78 | 31,935 | 2,805 | 2,035 | 36,775 | 68 | 7 | 3 | — | 5 | 12 | 225 | 242 |
| Bombay - - - | 420 | 146,672 | 39,815 | 7,619 | 193,106 | 294 | 132 | 3 | 8 | 17 | 86 | 1,435 | 1,538 |
| Assam - - - - | 13 | 1,606 | 439 | 135 | 2,180 | 12 | — | — | — | — | — | 4 | 4 |
| Ajmere - - - | 2 | 778 | 476 | 12 | 1,266 | — | 2 | — | — | — | — | 4 | 4 |
| Total, 1904 - | 1,449 | 466,721 | 85,221 | 35,618 | 587,560 | 1,004 | 314 | 116 | 22 | 91 | 586 | 2,383 | 3,060 |
| Total, 1903* - | 1,654 | 447,817 | 90,700 | 33,122 | 571,639 | 1,114 | 436 | 109 | 37 | 91 | 568 | 2,330 | 2,989 |

* The figures for 1903 contain statistics relating to 263 factories in the Central Provinces and 20 in the United Provinces which, owing to their small size and short working season, should not, under the existing law, have been included. Such factories are excluded from the 1904 returns.

The comparison with the figures given last year for 1903 shows a decline in the number of factories, but if the corrections indicated in the footnote be made, there appears an actual increase of 78 concerns. The number of hands employed shows an increase of 16,000, in spite of the exclusion of so many small factories. The scarcity of industrial labour has, however, attracted attention, more especially in Bengal and the United Provinces. In accordance with a suggestion of the Conference of Indian and Ceylon Chambers of Commerce in April 1905, the Government of India took the opinion of the Governments of those two Provinces as to the desirability of making a special inquiry into the matter. Both Governments acted on the suggestion that special officers should be appointed for this purpose, and the result of their inquiries is awaited.

Inspection work was, on the whole, satisfactorily performed during the year, though there were occasional omissions, which have received the attention of the Governments concerned. Under a Bill introduced since the

end of the year under report it is proposed, in amending the Factory Act in various minor respects, to bring within the scope of that Act the smaller factories which, as above mentioned, are excluded from the present returns. This will largely increase the work of inspection. Few cases were reported in which the provisions of the Act relating to the working hours and employment of women and children were contravened, and those that arose were adequately dealt with. The questions of the duration of the hours of labour, the conditions under which the operatives work, and the employment of women and children, in the Bombay mills are matters to which much attention has recently been drawn. A satisfactory account is given of the health and general condition of the operatives. The inspecting officers gave careful supervision to the sanitation of factories, and the septic tank system was being gradually introduced. There was no noteworthy change in respect of the number of accidents. In the majority of cases the fatal accidents were, as usual, reported to be due to the carelessness of operatives.

FACTORIES ACT.

Detailed statistics as to the wages of mill operatives are now collected, with a view to publication in the yearly volume "Prices and Wages," published by the Government of India. The wages compare favourably with those of agricultural labourers in all provinces.

## CHAPTER XVI.

### FRONTIERS AND NATIVE STATES.

FRONTIERS AND NATIVE STATES.

Baluchistan and the Persian Frontier.

The rainfall in the Baluchistan Agency during the year 1904–05 was insufficient; the winter and spring were abnormally cold, and the cattle and crops suffered. The public health was generally satisfactory. Plague did not make its appearance in Baluchistan proper, but there was a slight outbreak at Sonmiani on the Mekran coast in March 1904, which caused 21 deaths. Segregration camps were organised, and in June 1904 the disease disappeared. Three cases were detected by the Plague Inspection Medical Officers among the passengers arriving at Sibi by train. These cases were treated in the Sibi segregration camp. The precautionary measures against plague adopted in previous years were continued during the year under review, a camp of inspection being maintained during the summer at Hirok and during the winter at Sibi. In consequence of an outbreak of the disease in the Dera Ghazi Khan district an observation camp was established at Dakhni in the Loralai district, with effect from 22nd January 1905, with a view to preventing the epidemic getting into Baluchistan from that quarter.

The receipts for the year as a whole amounted to £201,600, and the expenditure to £196,300, of which £30,000 was devoted to public works. There was an increase in the general volume of trade. Encouraging results in sericulture were obtained at Mastung and elsewhere, but the industry is still in an experimental stage.

The number of district levies in Baluchistan, including those employed as postal runners, was 2,214 on the 31st March 1905. An addition of 100 men to the Chagai levies was subsequently sanctioned in June 1905. The Mekran Levy Corps, the formation of which was sanctioned by the Government of India during the year (120 cavalry and 180 infantry), was raised at Mastung in the autumn of 1904. No difficulty was experienced in finding recruits for the corps, which is composed of Sarawan Brahui tribesmen.

Good relations were maintained with the Kalat State, and the conduct of the tribes throughout the Province was, on the whole satisfactory.

The peace of the Northern border was disturbed by an attack on the Khuni Burj post—in the Zhob Agency—made by a gang of Shirani outlaws harboured in Afghan territory. This was followed by an attack on the Shimbaz post, and another on the Shinghar road, presumably by the same gang. Measures were taken in concert with the Political Officer, Wano, for the detection and punishment of the offenders. On the Chagai portion of the border the only serious outrage was an attack in February 1905 on eight Afghan traders who were returning from Seistan by the Helmund route. The property of the traders was looted, and the assailants made good their escape into Afghanistan. The necessary steps were taken to protect the portion of the route where the outrage took place.

Nothing occurred to disturb the peace of the Persian Frontier.

The administration of Mekran was satisfactorily conducted under the Nazim. Some development took place in the prosperity of Pasni, and the trade at the port increased. It is hoped that the opening of the newly-sanctioned line of telegraph from Karachi to Panjgur *viâ* Las Bela, combined with the improvements lately effected in road and postal communications, may materially assist the development of Makran.

The State of Las Bela suffered heavily from drought during the first seven months of the year, which largely destroyed the kharif crops and

caused great distress among cattle. The State is well administered by its Chief, Jam Mir Kamal Khan. FRONTIERS AND NATIVE STATES.

The harvests in the North-West Frontier Province were good, and the people enjoyed a greater degree of prosperity than in the preceding year. The price of food grains fell considerably, and the volume of trade increased. North-West Frontier Province.

A gang of Afghans and outlaws from British territory, with its head-quarters at Hazarnao in Afghan territory, committed serious depredations in the Peshawur district, coming and returning through the Bazar Valley. In the south a similar gang collected near Ghazni, in Afghan territory, and attacked British posts in Zhob (Baluchistan).

The policy of withdrawing military garrisons from the border agencies was completed in the autumn of 1904, when Kaguri Kach and Nili Kach in Wana, and Miranshah in Tochi, were handed over to the militia. Chitral, Drosh, Chakdarra, the Malakand, and Jandola remained the only places beyond the administrative frontier where garrisons of regular troops were maintained. The militia corps in general continued to show themselves worthy of trust.

In Waziristan, however, two murders occurred of British officers by Mahsud sepoys of the Southern Waziristan Militia. In September 1904, Captain Bowring, political agent, was murdered by an Abdur Rahman Khel sepoy at Sarwakai. In February 1905 an attempt, by a Mahsud sepoy, on the lives of all the British officers assembled in the mess room at Wana, resulted in the death of Lieut.-Colonel Harman, D.S.O., Commandant of the Militia. In consequence of this latter murder the Mahsuds in the Southern Waziristan Militia, some 400 men—about a quarter of the whole strength of the corps—were disarmed, and a full *jirga* of the tribe was summoned to meet the Chief Commissioner of the North-West Frontier Province. The murderers in both cases were subsequently apprehended and executed. It was decided not to reinstate the disarmed men, but to make a fresh enlistment of from 100 to 150 selected Mahsuds, for whose individual conduct the tribe would be willing, in accordance with an undertaking given at the meeting, to furnish a full guarantee. Steps were thereupon taken to select recruits and obtain the necessary security from the tribe in the case of each of them.

In the north good relations were maintained with the peoples of Dir, Swat, and Chitral, and no trouble was caused by the neighbouring tribes to the east.

No events of political importance occurred in Kashmir in 1904–05. The State does not furnish an annual administration report. Kashmir.

Friendly relations were maintained with the Nipal State during the year under report. The administration of the present Maharaja is reported to be satisfactory. The people are prosperous, and their material condition sound. Considerable attention is paid to medical matters. Charitable hospitals have been built at Papla and Bhatgaon—the latter was opened with some ceremony on the 30th June 1904—and a dispensary at Doti. The Durbar continued to give the same facilities as in past years for the recruitment of Gurkhas for the Indian Army. The value of the trade of Nipal with British India is returned as £2,664,000 in the year 1904–5. Nipal.

As noted in the statement furnished last year, the passage of the Thibet Mission through Sikkim to Thibet caused considerable disorganisation of the ordinary business of the State. These conditions were still apparent in the year 1904–05. The financial condition of the State was, however, satisfactory. There was some increase in the volume of trade, though the figures were still much below the average. There was a marked increase in the number of families emigrating to Assam and Bhutan. The public health was fairly good, except in the locality of Gangtok and on the lines of communication of the Thibet Mission where an outbreak of cholera in an epidemic form occurred. Smallpox was also prevalent. Useful work was done by the medical staff at the Gangtok Hospital and the dispensary at Chidam. Sikkim and Bhutan.

Friendly relations were maintained with the Bhutan State. The Dharma Raja died on August 20th, 1904. The Tongsa Penlop continued to be Prime Minister, and virtually ruler of the State.

FRONTIERS AND NATIVE STATES. Manipur.

In the Manipur State the rainfall was timely and sufficient, and the yield of the crops was satisfactory. There was no epidemic of any kind during the year, and the public health was better, and the general conditions happier than in the preceding year. The revenue realised during the year amounted to £27,000 as compared with £26,000 in the preceding year. The expenditure was increased by over £5,000, the total being £28,000. £11,500 was devoted to public works as against an outlay of £9,800 in 1903–04. In the autumn of 1904 there were some disturbances at Imphal, but order was restored without difficulty with assistance obtained from the regiment stationed at Manipur. Some cases of incendiarism also occurred during the year, which was otherwise uneventful.

Assam Frontier.

The tribes on the Assam Frontier were generally well-behaved during the year under review. Some trouble was, however, caused towards the close of the year by the trans-Dikhu tribes, adjoining the Naga Hills district. In January 1905 an expedition to Mozungjami had to be undertaken to exact punishment for the murder of two Ao Nagas in November 1903.

Khasi and Jaintia Hills.

In the Khasi Hills U Babon Singh was elected Siem of the Mawsanram State in place of U Symburai, who had been transported for life for murder (as noted in the Statement furnished last year). The choice of the people was accepted by the Chief Commissioner. The opposition which had manifested itself to the appointment of U Dakhur Sing, as Siem of the Khyrim State, died out to a great extent, and affairs in the State were quiet. In the Cherra State an arrangement was come to regarding the electoral rights of the people, which it is hoped will prevent trouble and disturbances in future when the election of a Siem becomes necessary.

BURMA. The Chin Hills.

Raids by trans-frontier villagers continued to interrupt the peace of the Chin Hills, but the development of the people made remarkable progress, and the peaceful resort of the Chins to the plains continued unchecked. In the Pakokku tract a shortage of crops caused some anxiety. Good relations were maintained with the trans-frontier villages with the help of the locally recruited Chin police, who have almost entirely replaced the military police force. The Piya Chins on the Upper Chindwin border made their submission, and the blockade, which had been enforced against them, was removed.

Kachin Hills.

Regard for administrative efficiency necessitated the constitution of a new charge in the Kachin Hill tracts of the Myitkyina district. Border cases with China were adjusted satisfactorily with the help of the Chinese officials and the British Consular authorities at Yunnan-Fu and Tengyueh. The internal administration of the Hills was uneventful, crime was light, and tribute was collected without difficulty in spite of an indifferent harvest. The output of jade increased largely, and the Hukawng Valley sent in large quantities of amber and rubber. Fourteen trans-frontier chiefs paid a visit to the Deputy Commissioner at Myitkyina, at which border affairs were discussed.

Northern Shan States.

The complete tranquility of the Northern Shan States was threatened only by an abortive rising under a religious fanatic, which was suppressed by the military police. The satisfaction of border claims was again obtained by meetings with the Chinese authorities, and this method of adjustment was extended to the ill-administered State of Meng Ting. Partial failures of the staple food crops were counterbalanced by the facilities for trade afforded by the railway. The mortality amongst cattle was severe in most of the States. The tea crop was abundant and commanded good prices. The work of the police was satisfactory. There was a large increase of crime amongst the alien population along the line of railway. The work of the Civil Courts showed a satisfactory improvement. Fiscal independence was still withheld from the Acting Chief of Hsipaw pending the liquidation of his debts; and a Government adviser was appointed to put in order the finances of Tawngpeng. The rate of tribute in the Kachin tracts was raised and the demand paid without difficulty. Expert assistance was obtained from Burma for the supervision of the extensive public works undertaken by the Chiefs of the various States. The petty States of Hsawnghsup and Singkaling Hkamti were quiet and prosperous. In both of them and in Mong Mit, which

was still administered under Government control, an abundant rainfall produced an excellent harvest. FRONTIERS AND NATIVE STATES.

In the Southern Shan States there were no untoward border incidents. The Political Officers had, however, to deal with individual cases of inept or despotic conduct among the chiefs. A successful and well-attended Durbar was held by the Lieutenant-Governor in March 1904, and was followed by a cattle show and an exhibition of arts and crafts which served to illustrate the great resources of the country, and the need of a railway to extend its markets. The replacement of the military garrison by Military Police was completed. Internal communications improved, and the principles of the revenue system embodied in a simple code of rules. There was no serious increase of crime. A dangerous gang of robbers was successfully dispersed by the Chief of the Pwela State. The school for the sons of Shan Chiefs continued to flourish, and measures were taken for the improvement of indigenous schools. Agricultural conditions were favourable, and tribute and taxes were for the most part paid without difficulty. Good relations were maintained with both the French and Siamese officials across the border. Southern Shan States and Karenni.

Karenni remained at peace, but elements of discord were engendered by the mutual jealousies of the Chiefs, and embittered by religious animosities. The administration in each State was generally good.

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## NATIVE STATES.

NATIVE STATES.

No event of political importance occurred in the Hyderabad State during the year under review. Details as to the administration of the State are not available as the Nizam's Government does not publish an annual report. Hyderabad.

Climatic conditions in Mysore in 1904–05 were not very favourable to agriculture owing to a partial failure of the north-east monsoon. The price of food grains rose in the latter half of the year. The returns of cognisable offences show a general increase of crime compared with the preceding year. Mysore.

The State continued to be afflicted by plague. The total number of cases and deaths was 24,375 and 17,503 respectively, as compared with 26,893 cases and 20,014 deaths in 1903–04. The measures taken to combat the disease were similar to those employed in the preceding year.

The Representative Assembly met on the 21st October 1904 and on the five following days.

The following Regulations were passed during the year :—

(1) VI. of 1904.—A Regulation further to amend the Code of Civil Procedure as in force in Mysore.

(2) I. of 1905.—A Regulation to amend the Mysore Military Regulation, II. of 1899.

(3) II. of 1905.—A Regulation further to amend the Mysore Chief Court Regulation, I. of 1884.

(4) III. of 1905.—The Mysore Coöperative Societies Regulation, 1905.

The total expenditure on education from State and local funds amounted to £74,000. Special attention was paid to technical and industrial education. Sericulture was advanced by the aid of Mr. Tata's Silk Farm at Bangalore, and a new weaving school with a carpentry class was opened at Molakalmuru.

NATIVE STATES.

The following are the principal figures in connection with revenue and expenditure of the State (as given in "The Summary of the Material and Moral Progress and Condition of Mysore for the year 1904–05"):—

| REVENUE. | | EXPENDITURE. | |
|---|---|---|---|
| Land revenue - - | £644,582 | Land revenue - - | £116,065 |
| Mining royalty and leases | 112,710 | General administration - | 54,517 |
| Forests - - - - | 125,992 | Palace - - - - | 106,666 |
| Excise - - - | 251,683 | Law and justice, courts and jails - - - | 69,362 |
| Railways - - - | 52,933 | Police - - - | 65,300 |
| Cauvery Falls Scheme - | 76,334 | Education - - - | 51,541 |
| | | Allowances, &c., including tribute - - | 261,617 |
| Total (including other charges) - - | £1,429,741 | Military - - - | 88,886 |
| | | Public works - - | 242,734 |
| | | Plague charges - - | 7,793 |
| | | Railways (capital and revenue) - - | 49,414 |
| | | Cauvery Falls Scheme - | 78,923 |
| | | Total (including other charges) - - | £1,446,549 |

The totals show a decrease of £8,635 in receipts and an increase of £439 in expenditure as compared with the totals given for 1903–04 in the Statement furnished last year.

During the year under review the construction of no lines of railway was undertaken by the State. The length of open lines remained the same as in the preceding year, viz.:—401 miles metre gauge, 10 miles standard gauge.

Reference has been made to the gold production of the Mysore gold mines on page 117 of the present Statement.

Baroda. Rajputana.

Reports on the administration of the Baroda State and the Native States of Rajputana for the year 1904–05 have not been received, and no information as to these States is therefore available for the puposes of the present chapter.

Central India Agency.

Climatic conditions were unfavourable to agriculture in the Central India Agency in the year 1904–05. The rainfall was in many parts deficient, and was as a rule badly distributed; while the promise of an excellent *rabi* crop was ruined by severe frost, which did much pamage both to crops and trees throughout practically the whole Agency. Large remissions of revenue were made in the Gwalior and Indore States. and in nearly all the States the collections of revenue fell far short of the demand. The resources of many of the smaller States were severely tried by these misfortunes. The question of Land Revenue Settlement was engaging special attention in the Agency. During the year under review operations were in progress in the Indore, Narsinghgarh, and Rajgarh State, and in the States in the Bundelkhand Agency, and arrangements were being made to commence operations in several other States. The public health was generally good; but plague was still prevalent. The disease, though more widely spread than in the preceding year, is reported to have been of a less virulent type. The total number of deaths recorded in 1904 were 26,545, as against 31,153 in the preceding year. Good results attended the measures taken to combat the disease in the Residency area at Gwalior. The Bhopal State was fortunate, and suffered in a small degree only. The few cases which occurred there were mostly imported from outside districts. The report on the working of the Agency Police was generally satisfactory, and a decrease of crime is noted. In the Gwalior, Indore, and Bhopal States there was also a diminution of serious crime. As a result of the scheme for the reorganisation of the Thagi and Dakaiti Departments in Rajputana, Central India, and Hyderabad, which was mentioned in last year's statement, the Department in Central India was placed directly under the Agent to the Governor General, with effect from

1st October 1904. The new arrangement gave promise of favourable results. The total number of dakaitis reported during the year 1904 as having occurred within the jurisdiction of the Central India Agency was 108 cases, as against 145 in 1903. No case of thagi by poisoning for plunder was reported in 1904. The total outlay on Imperial Public Works in Central India in 1904–05 amounted to £31,600, as against £24,700 in the preceding year. Of this amount £9,900 was spent on "Communications," £7,200 on "Establishments," £8,100 on "Civil buildings," and £1,600 on "Military Works." Measures were taken for the reconstruction of the Daly College, Indore, as a centre for the education of the sons and relatives of ruling Chiefs and notables. The movement had its origin at the College Conference which was held at Ajmer in March 1904. A sum of about £80,000 was raised or promised by subscribers in Central India. Progress has since been made with the reconstitution of the College, and good hopes are entertained of its ultimate success. In the Gwalior and Indore States efficient Education Departments are now maintained by the Darbars. The question of making provision for the inspection and supervision of schools and educational institutions in other Native States within the Agency is engaging the attention of the local authorities. The administration of the Indore State under the Council of Regency continued to make satisfactory progress. On the 30th September 1904, when the financial year closed, the balance of the State amounted approximately to £868,000, exclusive of the railway loan of £666,000 to the Government of India, and a further sum of £666,000 invested in Government Promissory Notes, the famine loans to neighbouring States, and taccavi and other advances to the ryots. NATIVE STATES.

The following administrative changes took place during the year under review:—

(1) His Highness Sawai Maharaja Sahib Savant Singh, who succeeded to the chiefship of the Bijawar State in June 1900, was invested with full administrative powers on 17th October 1904. The Bijawar State has an area of 965 square miles, a population of about 110,500, and a gross revenue estimated at £7,000 a year.

(2) His Highness Rana Ram Singh, who succeeded to the chiefship of the Sitamau State in November 1900, was invested with full administrative powers on 28th February 1905. The Sitamau State has an area of 350 square miles, a population of about 33,000, and a gross revenue estimated at £8,200.

(3) Rana Pratapsinghji, who succeeded to the chiefship of the Ali Rajpur State in February 1891, was granted ruling powers on 25th January 1904. The Ali Rajpur State has an area of 836 square miles, a population of about 50,000, and a gross revenue estimated at £6,200.

The following Native States are under the political control of the Government of Bengal:—Cooch Behar, Hill Tippera, the Tributary and Political States of Chota Nagpur (nine in number), the Tributary Mahal Mahals of Orissa (17 in number), and the States of Sikkim and Bhutan. BENGAL.

The affairs of Sikkim and Bhutan have already been noticed in the account of the Frontier States, *see* page 181.

The seasons in the Cooch Behar State were not altogether favourable to agriculturists during the period under review. The rainfall was badly distributed, and severe cold and frosts caused considerable damage to the tobacco crops. The out-turn of jute was also poor. The rice crop, however, was less affected, and the yield was up to the average. Owing to the prevalence of cholera, small-pox, and fever, the public health was not good. In spite of these drawbacks, the general condition of the people continued to be prosperous, and the revenue of the State, both in respect of collection and demand, was the highest recorded in the past six years. The satisfactory working of the State railway contributed to these good results; the receipts under this head showing an increase of over £1,000. The year was marked by an absence of heinous crime. Education continued to make satisfactory progress. The total expenditure of the Public Works Department during the year amounted to about £10,800.

NATIVE STATES.

In Hill Tippera the year was not a favourable one for all classes of the people. The out-turn of the cotton crop, consequent upon heavy and untimely rains, was much below normal. The public health, however, was generally good. Measures for the reorganisation of the State Police were taken in December 1904. A Bengal Police Inspector was then placed provisionally in charge of the force. Satisfactory results attended his appointment. and it is proposed to transfer the officer to the service of the State. The Victoria Memorial Hospital at Agartala, which is described as a spacious building with accommodation for 40 beds for general patients and 10 for contagious cases, was opened by the Lieutenant-Governor of Bengal in July 1904. The State maintains 10 dispensaries and hospitals. Education is reported to have made fair progress.

In the Tributary and Political States of Chota Nagpur the health and material condition of the people were generally good, in spite of unfavourable climatic conditions at various seasons of the year. The administration of the States of Udaipur, Bonai, and Kharsawan, owing to the minority of their Chiefs, was carried on under the Commissioner's supervision, by the managers appointed by Government for the purpose; while in Gangpur the criminal and civil administration work was carried on through an officer of the Provincial Executive Service. The remaining States, viz., Changbhakar, Jashpur, Korea, Seraikela, and Sirguja, were in charge of their respective Chiefs, as in the preceding year. During the year under report a member of the Civil Service was deputed to make a tour through all the States, except Seraikela and Kharsawan, which are directly under the Deputy Commissioner of Singhbhum, to make a detailed report concerning the material condition of the people, the mode of administration obtaining in each State, and the relations existing between the Chiefs and their subjects. The total revenue from all sources of all the States of Chota Nagpur amounted during the year to £58,800, as against £51,500 in the preceding year. This increase was shared by all the States except Udaipur. Education continued to make progress. The introduction of the Arms Act rules was sanctioned by Government during the year under report, and the rules were sent to the Chiefs and Managers of the States for publication and adoption.

No change occurred during the year under review in the administration of the Tributary Mahals of Orissa. The States of Dhenkanal and Pal Lahera remained under Government management, owing to the minority of their Chiefs. The Narsingpur State, whose Chief attained his majority in January 1904, was administered by a Dewan appointed by Government. The Nayagarh and Baramba States also remained under Government management. The other States, of which Moharbhanj is the most considerable, were in the charge of their respective Chiefs. The year on the whole was a prosperous one in the Tributary States. Although the rainfall was very unevenly distributed, the crops were generally good, and the health of the people satisfactory. There were no epidemics of cholera and small-pox, as in the preceding year. The total demand on account of revenue from the five States under Government management amounted to £53,700, and the collection to £48,700. All the States devote a certain portion of their incomes to education and the maintenance of dispensaries, and a considerable sum (about £15,500) was spent on Public Works during the year. Towards the close of the year steps were taken to introduce the Contract Distillery System systematically in the States of Moharbhanj and Nilgiri, the Chiefs of which agreed to the proposal, and the system is now working in those States. During the year under review the construction of the Moharbhanj State Light Railway was brought to completion, and the line was declared open by the Lieutenant-Governor of Bengal on 2nd December 1904.

United Provinces of Agra and Oudh.

The general health of the people in the Rampur State was better than in the preceding year. The progress of vaccination operations continued to be slow and unsatisfactory. There was a local failure of the rice crop, but the seasons were on the whole favourable to agriculture. Irrigation was developed by the improvement of existing channels and weirs. Measures for a revival of the sugar industry were initiated. The experiments were satisfactory and gave promise of good results. A State-aided Agricultural Bank was established. Steps were taken to extend facilities for primary education.

NATIVE STATES.

The financial condition of the State remained sound. The income amounted to £220,000 and the expenditure to £210,000, as against £233,000 and £213,000 respectively in the year 1903–04.

The demand for land revenue in the Tehri State was a little less than £3,400. The amount was easily collected, though the year was not altogether a prosperous one, crops and cattle having suffered from a heavy snowfall in the winter. The public health was generally good. The revenue amounted to £50,000 and the expenditure to £41,700, as against £28,000 and £20,000 respectively in the preceding year.

Punjab.

The arrangements for the supervision of the Native States in the Punjab remained as they were in the year 1903–04. The States with the exception of Chamba which is in the political charge of the Commissioner of Lahore are arranged in four groups, as follows:—

(1) The Phulkian States, comprising Patiala, Jind, Nabha, and Bahawalpur, in charge of a separate Political Agent.
(2) The States of Kapurthala Mandi, Maler Kotla, Faridkot, and Suket, in the political charge of the Commissioner of Jullundur.
(3) The States of Sirmur, Kalsia, Patandi, Loharu, and Dujana, in the political charge of the Commissioner of Delhi; and
(4) The States of Bilaspur, Bashahr, Nalagarh, Keonthal, and numerous other small Hill States of Simla, in the charge of the Superintendent of Hill States, Simla.

Generally speaking, the agricultural conditions in all the States were good, and the administration proceeded smoothly during the year under report. Plague, however, was prevalent in many quarters, and it raged with a virulence even greater than in the preceding year, in the States of Patiala, Jind, Nabha, Kapurthala, Maler Kotla, Faridkot, and Dujana; in the last-named State the pestilence was so severe during the spring of 1905 that two-thirds of the population are reported to have evacuated the town of Dujana in order to escape from its ravages. The constitution of the Council of Regency in the Patiala State remained unchanged. The balance in the reserve treasury increased during the year from £133,000 to £163,000; and several important projects were executed by the Public Work Department in the matter of roads, bridges, State offices, drainage, and dispensaries. The Chief of the Maler Kotla State was entrusted with enhanced powers of administration; and the Chief of the Chamba State, Raja Bhure Sing was formally installed on the *gaddi* in succession to his brother, whose voluntary abdication was noted in last year's Statement. Peace was fully maintained on the Punjab border during the year under review.

Central Provinces.

The Feudatory States of the Central Provinces enjoyed fairly satisfactory crops in spite of a deficiency in the rainfall. Apart from a slight outbreak of plague in the town of Khairagarh the States were free from epidemic disease, and the improvement in the material condition of the people which was noted in the preceding year was well maintained. Prices remained low, and there was a keen demand for agricultural labour. Trade was good generally, and excise receipts showed an increase. The general prosperity was accompanied by a marked diminution of crime, which reduced the jail population to 20 per cent. below the average. Education made real progress throughout the year, especially amongst the poorer low-caste classes. The financial position of all the States showed improvement. The States of Patna and Sakti paid off the balance of their debt, while much was done towards the extinction of the debts due by the Nandgaon and Khairagarh States. The expenditure on public works in the seven States in charge of the Executive Engineer, Chhattisgarh Division, increased slightly, and substantial improvements were effected in Kalahandi, Patna, Nandgaon, and Bastar. Considerable progress was made also with the extension of lines of communication in Kalahandi, Patna, and Bastar, and existing roads were adequately maintained. The Rehrakhol State was withdrawn from the charge of the Executive Engineer during the year.

Administrative changes were few during the period under review. The six States of Bastar, Kalahandi, Sarangarh, Kawarda, Nandgaon, and Chhuikhandan continued under the direct administration of Government.

NATIVE STATES. In November 1904, Satchida Nand Tikait was formally installed as Feudatory Chief of Bamra in succession to his father, whose death was noted in the Statement furnished last year. Wider powers of administration were granted to the Feudatory Chief of Rehrakhol, who during the three previous years ruled under the guidance of an officer appointed by Government.

Madras. The season in the Travancore State was generally favourable, but the rains of the south-west monsoon were more than ordinarily heavy. There was no appreciable variation in the prices of food grains or the wages of labour. The total revenue of the State, exclusive of debt heads, amounted to £680,000, and the expenditure to £708,000, as against £667,000 and £733,000 respectively in the preceding year. The amount expended on public works was about the same as in 1903–04, viz. :—£179,000; of this amount £44,000 was devoted to the Kodayar irrigation project. If this expenditure is regarded as "capital outlay," the financial result of the year shows a surplus of about £13,000. The value of the exports in 1904–05 amounted to £1,368,000, and the imports to £725,000, as against £1,247,000 and £677,000 respectively in the preceding year. Education continued to receive due attention. The amount spent under this head was about £40,000, or nearly £3,000 more than in the year 1903–04. During the year under review the State undertook to educate free, irrespective of caste or creed, all children in the primary stage. There was some improvement in vaccination operations: 13,441 infants were successfully vaccinated, against 11,077 in the preceding year. As regards crime, the number of cases reported to the police rose by 54, but except in dacoity, cattle and ordinary thefts, grave crime generally decreased.

The public health in the Cochin State during the year under review was fairly good, and the season was favourable to agriculture. The total revenue amounted approximately to £184,000 and the expenditure to £182,000 as against £161,000 and £174,000 respectively in 1903–04. The net revenue from forests showed a considerable increase; the figures being £39,000, as against £33,800 in the preceding year. The expenditure on public works amounted to about £17,000. There was a slight improvement in vaccination operations. The work of the Police Department continued to be satisfactory on the whole. The crime register rose slightly.

Owing to insufficient rainfall, the seasons in the Pudukkotati State were very unfavourable to agriculture. This necessitated the grant of special concessions in revenue collections. The price of the principal food grains rose. The public health was generally good. Vaccination operations showed good results. The financial position of the State was satisfactory. There was a closing balance of £80,600. The expenditure on public works amounted to £16,800, and £2,500 was devoted to education.

In consequence of the continued mismanagement of the Banganapalle State by its Chief—Nawab Saiyid Fateh Ali Khan*—and of his disregard for repeated warnings, the Nawab was temporarily removed from the direct administration of the State, and its management was assumed by the Government of Madras with effect from 1st February 1905. The rainfall during the year 1904–05 was scanty. Both the early and late crops suffered and the out-turn was very poor. No reliable information for the period under review is available. Such returns as had been prepared under the Nawab's rule proved to be quite untrustworthy.

In the Sandur State the rainfall, though less copious than usual, was generally sufficient for all the crops except korra. Prices were easier than in 1903–04. The public health was good. The financial condition of the State was satisfactory. The total receipts amounted to £3,500, and the expenditure £3,000. There was a closing balance of £3,300.

Bombay. Over the greater part of the Presidency of Bombay the rainfall during the year under review was erratic and in many places insufficient. The crops were consequently, on the whole, below the average. In Northern Gujarat the Native States of Kathiawar, and the Cambay State fared worse than the more hilly States towards the interior. No relief works were opened, but, where necessary, the people were helped by *taccavi* advances and by remissions and suspensions of revenue. In the Southern Gujarat

* The Nawab died 21st April 1905.

States conditions were more favourable; and in the Dangs especially the people enjoyed some measure of prosperity. In the Konkan States the crops were fairly good, but the progress of the people towards civilization is reported to be slow. Conditions in the Deccan States (Satara Jaghirs) more closely resembled those in Northern Gujarat; but the *rabi* crops were somewhat better. In the Southern Maratha States the rainfall was insufficient, but although the crops were, in consequence, below the average, there was no serious relapse in the condition of the people. In the Khairpur State, the *kharif* crops were poor, but the *rabi* crops were excellent, whilst the rapid extension of irrigation in the State was causing a material improvement in the condition of all classes. Khairpur, Savantvadi, and Bhor were the only States entirely free from plague. In the Southern Mahratha Country States the disease was much less virulent than in the preceding year, but the general death-rate rose somewhat in other Agencies. Education exhibited fair progress in practically every State, and increasing attention was paid to the medical requirements of the people. There was a slight increase of crime in the larger and more settled States. In the Kathiawar States the increase was more serious. In the more backward States crime for the most part decreased. NATIVE STATES.

The aggregate gross revenue of the States amounted to £3,036,000, showing a decrease of nearly £44,000 on the figures recorded in last year's Statement.

Although the trade of the Kathiawar ports improved, especially in exports, the returns from Cutch show a decline under both imports and exports.

The following are the figures:—

| | Exports. | | Imports. | |
|---|---|---|---|---|
| | 1903–04. | 1904–05. | 1903–04. | 1904–05. |
| | £ | £ | £ | £ |
| Kathiawar - - - | 1,312,800 | 1,986,900 | 1,229,800 | 1,395,600 |
| Cutch - - - | 244,000 | 87,300 | 603,400 | 483,800 |

Few original public works were attempted in the various States. Such expenditure as could be incurred was devoted almost entirely to repairs; the conversion of the Wadwan-Rajkot section of the Morvi Railway to the metre gauge was completed during the year, and the new line was opened by H.E. the Governor of Bombay. The only administrative changes of importance during the period under review were the following: the restoration of the old four-fold subdivision of Kathiawar by the re-establishment of the Gohelvad Prant: and the installation of Raja Krishna Shah on the *gadd* of the Jawhar State in succession to his father Raja Pantangshah, who died on 27th January 1905.

In pursuance of the scheme for the improvement of Chiefs' Colleges in India, the Staff of the Rajkumar College at Rajkot was considerably strengthened during the year under review.

# CHAPTER XVII.

ARMY.

## MILITARY AND MARINE SERVICES.

### ARMY.

The sanctioned establishment for 1904–05 was as follows :—

| | |
|---|---|
| British Troops - - - - - - - - - - | 74,311 |
| Miscellaneous Officers - - - - - - - - | 1,175 |
| Native Troops (including European Officers) - - - - | 155,240 |
| Total - - | 230,726 |
| Corresponding Total for 1903–1904 - - | 223,516 |

The late Hyderabad contingent, which was incorporated in the Indian Army in 1903–04, is not included in the total for that year. Its establishment, as incorporated, was 6,981.

The actual strength and distribution of the Army in India on the 1st April 1905 were as follows :—

| — | Number of Officers and Men. |
|---|---|
| NORTHERN COMMAND. | |
| *British.* | |
| Cavalry (3 regiments) - - | 1,981 |
| Artillery (24 batteries and companies) | 3,864 |
| Engineers - - - - | 10 |
| Infantry (14 battalions) - - | 14,948 |
| | 20,803 |
| *Native.* | |
| Cavalry (16 regiments) - - | 10,100 |
| Artillery (9 batteries, and Native drivers of British batteries). | 4,360 |
| Sappers and Miners (4⅛ companies) - | 691 |
| Infantry (41⅝ battalions) - - | 38,558 |
| | 53,709 |
| | 74,512 |
| WESTERN COMMAND. | |
| *British.* | |
| Cavalry (1 regiment) - - | 628 |
| Artillery (34 batteries and companies) | 5,704 |
| Engineers - - - - | 71 |
| Infantry (14 battalions) - - | 14,777 |
| | 21,180 |
| *Native.* | |
| Cavalry (14⅝ regiments) - - | 9,135 |
| Artillery (Native drivers of British batteries). | 1,071 |
| Sappers and Miners (9 companies) - | 1,380 |
| Infantry (42 battalions) - - | 33,680 |
| | 45,266 |
| | 66,446 |
| EASTERN COMMAND. | |
| *British.* | |
| Cavalry (3 regiments) - - | 2,027 |
| Artillery (21 batteries and companies) | 3,523 |
| Engineers - - - - | 48 |
| Infantry (15 battalions) - - | 15,792 |
| | 21,390 |

| — | Number of Officers and Men. |
|---|---|
| EASTERN COMMAND—*cont.* | |
| *Native.* | |
| Cavalry (5 regiments) - - | 3,234 |
| Artillery (Native drivers of British batteries). | 303 |
| Sappers and Miners (6 companies) - | 1,140 |
| Infantry (25⅝ battalions) - - | 23,212 |
| | 27,889 |
| | 49,279 |
| SECUNDERABAD DIVISION. | |
| *British.* | |
| Cavalry (2 regiments) - - - | 1,394 |
| Artillery (11 batteries and companies) | 2,031 |
| Engineers - - - - | 30 |
| Infantry (5 battalions) - - | 5,339 |
| | 8,794 |
| *Native.* | |
| Cavalry (4 regiments) - - | 2,482 |
| Artillery (Native drivers of British batteries). | 214 |
| Sappers and Miners (7⅞ companies) - | 1,276 |
| Infantry (14½ battalions) - - | 11,517 |
| | 15,489 |
| | 24,283 |
| BURMA DIVISION. | |
| *British.* | |
| Artillery (2 companies) - - | 292 |
| Engineers - - - - | 26 |
| Infantry (4 battalions) - - | 3,944 |
| | 4,262 |
| *Native.* | |
| Artillery (2 batteries) - - - | 618 |
| Sappers and Miners (1 company) - | 180 |
| Infantry (7 battalions) - - | 5,991 |
| | 6,789 |
| | 11,051 |

| | Number of Officers and Men. | | Number of Officers and Men. |
|---|---|---|---|
| CORPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA. | | GRAND TOTAL—*cont.* | |
| *Native.* | | *Native.* | |
| Bodyguards (Governor-General's and Governors'). | 268 | Cavalry (39⅝ regiments) - - | 25,219 |
| Resident's escort, Nepal - - | 95 | Artillery (11 batteries, and Native drivers of British batteries). | 6,566 |
| | 363 | Sappers and Miners (28 companies) - | 4,667 |
| GRAND TOTAL. | | Infantry (131 battalions) - - | 113,053 |
| *British.* | | | 149,505 |
| Cavalry (9 regiments) - - | 6,030 | | 225,934 |
| Artillery (92 batteries and companies) | 15,414 | Officers on the Staff - - | 839 |
| Engineers - - - - | 185 | | 226,773 |
| Infantry (52 battalions) - - | 54,800 | | |
| | 76,429 | | |

The establishment* was short by three battalions of Native Infantry in China and one in Somaliland

The total of the Native Army Reserve in India on 1st April 1905 was 24,525.

The net expenditure on the Army in 1904–05 was £19,214,763. The total in 1903–04 was £16,775,780.

The number of Volunteers in the whole of India on 1st April 1905 was as under :—

| | Enrolled Strength. | Efficient. |
|---|---|---|
| Northern Command - - - | 1,968 | 1,923 |
| Western Command - - - | 7,282 | 7,003 |
| Eastern Command - - - | 12,909 | 12,674 |
| Secunderabad Division - - - | 7,369 | 6,586 |
| Burma Division - - - - | 2,559 | 2,525 |
| | 32,087 | 30,711 |

On the 1st April 1905 the number of enrolled Volunteers was 32,944, of whom 31,966 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1904–05 was 1,352.

* The five battalions of Native Infantry regularly employed in the Colonies are not reckoned as part of the establishment.

ARMY.

Early in the year 1904–05, H. E the Commander-in-Chief in India addressed to the Army the following memorandum regarding the higher training and military education of Officers, the distribution of Staff duties, the responsibility of General and Staff Officers, and the training of troops for war (India Army Order, No. 246, of the 11th April 1904):—

For some time past I have had under my consideration the general question of the preparedness of the Army in India for war. I have now arrived at certain conclusions which are detailed in the following paragraphs:—

Our Army is admittedly a small one for the purposes for which it is maintained. There is, consequently, all the more need for a higher standard of excellence with us than obtains elsewhere. It must be the constant endeavour of everyone in the Army in India to so train themselves and those under them in time of peace that, when the strain of war comes, all ranks may know what to do and how to do it.

Notwithstanding the many instructions regarding the military training of troops which have from time to time been issued, the results hitherto attained in India in regard to this most important subject have been somewhat disappointing. I recognise that since the South African War there has been some improvement in the military training both of troops and staff officers, but the progress is slow and is apparently hampered by certain difficulties and defects which I shall endeavour to indicate, and which it is my object to remove. I trust that in so doing I may be able to stimulate the professional zeal of all officers from Generals downwards, and to give a fresh impetus to the battle training of the Army and to the improvement of its efficiency as a fighting machine.

Our military history supplies instances of how, in the past, we have courted failure and even invited defeat by an overweening confidence in the capabilities of our troops. We have thus lost sight of the necessity for taking every precaution against possible failure by careful previous study of the military problems which confront us, and by the proper training of our troops for war. In South Africa there were several instances of how such complacent beliefs and the consequent neglect of ordinary precautions led commanders to disaster. Against such erroneous ideas we should all most carefully guard ourselves, arising, as they do, from a false estimate of our preparedness for war, or from the feeling that, if we are not really a perfectly trained army, we are at least good enough to cope with any enemy we are likely to encounter. There are many cases to show that from such soothing beliefs there may be a rude awakening. In the day of battle a commander may find that his troops are not so well trained as he had fondly imagined, that his Staff itself leaves something to be desired, that the whole military machine, in fact, is inefficient and is not working smoothly. But it is too late then to remedy such shortcomings. It is during peace that we must prepare for war by making every component part of the machine —however apparently small and insignificant—thoroughly sound and serviceable.

Whatever the advantages of having a voluntary force may be, the very constitution and organisation of our Army prevents, to a large extent, our obtaining in the ranks that general high level of intelligence and capacity for learning which is undoubtedly to be found amidst the general population of the British Isles, while in India our troops are recruited very largely from the uneducated classes.

To remedy these deficiencies in our recruits, and to perfect their physical qualities, we must first inaugurate an improved system of training in the Army, and to do this it is necessary that we should have highly trained officers capable not only of becoming trusted and skilful leaders in time of war, but of proving themselves reliable instructors in time of peace.

We must follow a system of training for war suited to the vastly changed conditions of the present day, and steadfastly eliminate all obsolete traditions. In all ranks, from the private soldier to the General Officer, each step up the ladder requires a corresponding increase in knowledge, in self-reliance, in the power of initiative, in the habit of readily accepting responsibility, and in the faculty of command—qualities which can be attained only by unremitting study combined with constant practice.

It is recognised that it is the duty of a Commanding Officer to educate and train his men in all branches of soldiering, but hitherto it has not been so generally understood that this holds equally true as regards the education and training of the officers serving under him. The plea that teaching is a difficult art which it is given to few to acquire is one which cannot be accepted. The whole secret of preparing for war is a matter of training and instruction, and Commanding or other officers who profess or show their incapacity as instructors, and their inability to train and educate those under them for all the situations of modern war, must be deemed unfit for the positions they hold.

The system at present in force in India, whereby officers are sent to garrison classes to prepare for their promotion examinations, is particularly faulty. Knowledge thus crammed up in the course of a few weeks, only to be forgotten as soon as the examination is passed, is in no sense education. In future the military education of officers must be imparted within their regiments; it must commence from the day they join, and continue until they leave, the service. This will never be the case so long as garrison classes exist, and I therefore propose to abolish them and to insist on all officers going up for their examinations direct from their regiments. I recognise, however, that at first, at all events, there may be Commanding Officers who, through ignorance, indolence, or incapacity, may fail to properly instruct those under them, and that it would be unfair to allow the prospects of young officers to suffer on this account. I therefore propose to retain one garrison class, which will be attended only by officers who have failed to pass direct from their regiments. Should such officers subsequently be successful, after attending the class in question, it will be a reasonable inference that the system of education in their regiments is defective, and for this Commanding Officers must be held responsible. If, however, they should again fail, it will be equally fair to attribute the double failure to their own indolence or incapacity, and their further retention in the service will then become an impossibility.

But, great as is the responsibility of Commanding Officers for the education and training for war of those under their command, that of the General Officer Commanding is still greater. Many Generals appear to imagine that they have fulfilled all their duty when they have reported badly on a unit and have officially recorded a long list of its shortcomings. This is a view from which I most emphatically dissent. A General must indeed be able to detect and point out faults, but such criticism is useless unless he himself is able and ready to apply the remedy that is needed. Troops must be accustomed to regard their Generals as necessarily hostile critics always on the look-out for something to find fault with, but as their trusted leaders in war, their instructors in peace, and at all times their ready helpers, able and willing to promote their welfare, and to spare no effort to increase their preparedness for the stress of active service. ARMY.

General Officers cannot attain this position with reference to their troops by virtue merely of their rank. Before they can expect troops to regard them in this light, they must first make themselves thoroughly fit for the positions they occupy. To be regarded as leaders they must be competent to lead; to be accepted as instructors their professional knowledge must be undoubted, and this entails on them the obligation of unceasing study and of constant practical application. In this way alone can they properly prepare their troops for war, and at the same time so train themselves as to be able adequately to discharge the great responsibilities which will devolve on them when called upon to command in the field.

The task which thus falls to the lot of a General Officer, whether in peace or war, is one which he cannot perform adequately without assistance, and for this assistance he is dependent on his staff. Nothing is more essential for complete preparation in peace and for successful operation in war than that an Army should have a thoroughly trained and highly educated General Staff. If such a staff is provided, and Generals know how to use their staffs, and how to employ and practise them in peace time, so as to prepare them for all the changing phases and emergencies of war, we shall have gone a long way towards attaining true efficiency. But this has never yet been fully realised in India, where no special staff training has up to the present been provided, and where, in fact, no facilities whatever exist for any higher military education than that necessary for promotion to the rank of Major.

I recognise, too, that another very serious impediment to a sound and practical system of Army training in India lies in the present distribution of troops and commands. These have grown up without plan or method, and are largely the legacies of a condition of affairs which has long ceased to exist. They will undoubtedly require rearrangement, but this is a subject which is being separately dealt with.

In order to meet existing difficulties as regards adequate staff training in India, two things are necessary—

(1) The means of higher education for the Staff Officers of the Army.
(2) The practical training for war of the General Staff thus formed by the recognition of a proper and logical allotment of their duties during peace.

I am in hopes that sanction may shortly be given for the establishment of a Staff College for India. In order to ensure the selection of none but the best and most promising young officers, only those who are nominated as specially suitable by General Officers Commanding districts will be allowed to compete. Generals will be held to be strictly responsible for the manner in which they perform this most important duty, and must therefore take the greatest pains to make themselves personally acquainted with the mental, moral, and social qualifications of all those serving under their command. Should the College be established, officers thus nominated will be subjected to a qualifying examination, both written and practical, the results of which will be forwarded to Army Head-Quarters. The Commander-in-Chief will then select those of them who shall be permitted to appear at the competitive examination by which admission to the College will be decided.

The course of training will result, I hope, in providing the Army with a fully instructed and thoroughly practical General Staff, competent to afford the maximum of assistance both in peace and war, not only to the Generals whom it serves, but also to the troops for whose benefit it exists.

Having arranged for the preliminary training of the staff, it is further necessary to provide for such an allotment of the duties pertaining to staff officers as will enable them to fulfil their main function of assisting their General in training and preparing his troops for war. Such an allotment does not at present exist. Staff duties are now divided into two branches known as A and B respectively. Each of these branches deals with a number of weighty subjects, but the more important work of each is hindered and retarded by the requirements of routine. It is undoubtedly necessary that this routine work should be adequately performed in order to ensure the comfort and well-being of the troops, but unfortunately it has in times of peace frequently assumed a wholly fictitious importance, with the result that the more essential matter of the training and preparation of the troops for war has been largely lost sight of, and staff officers have, as a rule, been content to devote themselves to duties of a merely clerical character.

In almost all military countries where war problems have been deeply studied, and where national military requirements have been fully appreciated and worked out, the supreme importance of a logical and efficient organisation of the staff has been recognised, and its functions have thus naturally fallen into two great divisions—

I. The Art of War.
II. Routine business in peace and war.

The first division is concerned mainly with all the higher problems of war both as regards ourselves and the armies and countries of all possible enemies, and in the practical application of the conclusions thus arrived at to the battle training of the personnel and to the preparation and development of our material resources.

The second division absorbs, both in peace and war, all that military business which is claimed by the dictates of regulation and by the requirements of routine, but which is none the less important in its bearings on the efficiency and welfare of the troops in barracks and in the field.

ARMY.

In order to cope with the requirements of the first division of staff duties, and to provide for their proper performance in districts, a further allotment into sub-divisions of—

(1) Training and preparation for war, and
(2) Maintenance and movement,

is necessary. The staff officer in charge of each of these sub-divisions will be directly responsible for all the duties it involves; he will work out all details, and formulate and execute all schemes of his sub-division, under the orders of his General, but he will in no way be relieved from the necessity of possessing an intimate knowledge of all that is dealt with in the other sub-division. The two branches of this great division must, in fact, work with that combination of purpose and perfect smoothness of execution which is possessed by the twin screws of a ship; though the channels in which they work are divided by the keel line between them, they will be always in reality working in perfect harmony and on parallel lines under the direction of the General—as their engine—to drive the vessel of the Army towards perfect efficiency.

I would further emphasize the absolute necessity for the officers employed in *both* divisions of the staff being at all times and in all their work completely in touch with the feelings and circumstances of the personnel of the Army, for it has always been a danger in the past, and one which we must carefully guard against in the future, that officers employed on the staff should drift out of touch with the troops for whose benefit and improvement their labours are incurred.

Armies whose staff duties are thus organised on logical lines of demarcation, will be prepared to take the field with the smallest possible disturbance of their organisation, and will possess the best chances of success in carrying through their campaign without friction, uncertainty, or delay.

Having thus considered the general principles which govern the duties of the staff, it remains only to apply them to the necessities of India. In the majority of existing second class districts the duties marked (1) and (2) in the above sub-divisions can be dealt with by one staff officer, while a second staff officer, who will also have sole executive charge of the district office, takes the routine division. But in a few districts of the second class, and in all those of the first class, separate officers will be required for each of the sub-divisions of the Art of War, and a third officer for routine work.

The distribution of work in two or three sections, as the case may be, is shown in the tabular statement which is annexed. For the present, at least, the allotment of individual officers to particular sections will rest with General Officers Commanding, who will study the intellects and capacities of the staff officers placed at their disposal, and will allot to each that sub-section of duties which he seems best fitted to perform efficiently. All staff officers should, however, possess a sufficient general knowledge of the duties of all sub-divisions to enable them at any time temporarily to take charge of any sub-section.

In accordance with the foregoing ideas, the Secretary of State has sanctioned a rearrangement of the staff whereby each first-class district in India will have two staff officers of the grade of Assistant Adjutant-General, and one of that of Deputy Assistant Adjutant-General. The four second class districts of Bombay, Durajat, Sirhind, and Rohilkhand, or their equivalents under a revised method of distribution, will each have two Deputy Assistant Adjutant-Generals and one Brigade Major. The remaining second class districts will have one Deputy Assistant Adjutant-General and one Brigade Major.

I wish carefully to impress on all Generals and staff officers the fact that, in thus providing for an increase in the number of the latter, it is far from my intention to diminish the work at present done by any individual officer, but, on the contrary, to allow work which is now neglected or left wholly undone to be adequately performed in the future. Thus, all staff officers will have more work to do than they have at present, though in many cases it will be work of a different kind. Those who are placed in charge of the Art of War sub-divisions must be continually engaged under the orders of their Generals, in superintending and assisting in the war training of officers and men. They must absorb much of what has hitherto been treated as purely technical work; such, for instance, as musketry, signalling, field engineering, the defence of positions, employment of artillery, and the like. In fact they will have to superintend and instruct in all branches of military training equally with drill, marching, discipline, and the care and comfort of the troops. The practice of treating certain parts of our profession as technical subjects to be left almost entirely in the hands of the specialist is one to be strongly deprecated. Staff officers must keep themselves abreast of the times in all military subjects and be prepared whenever called upon to undertake any duty which may be allotted to a staff officer whether in peace or war.

## THE TRAINING OF TROOPS.

The essential points to be observed in the training of troops are laid down in paragraphs 140 and 141, Part VI., of Combined Training, which should be closely attended to. It is impossible to lay too much stress upon the necessity for developing individual intelligence and initiative to the fullest extent—subject, of course, to the requirements of discipline. Without discipline all other training is useless; but in some cases there is a tendency to sacrifice that intelligent individuality, which is so needful in modern war, by carrying to excess the discipline of the parade ground. What is required is to aim at a happy medium which will combine these two important adjuncts of all training—discipline and individual action; for that army will gain a decisive superiority which has best understood how to train each individual man to use his weapon, while at the same time he learns to follow the signs, obey the orders, and emulate the example of his leaders. And the individual training must above all things be thorough. I would particularly impress this on the officers of the Indian Army. I have been struck with the readiness with which native soldiers of all ranks acquire a soldier-like bearing and learn such details of drill and military training as can be acquired mechanically. But if training stops at this point and intelligent action does not take the place of mechanical obedience, such training will in time of stress be found little more than a thin veneer, and when suddenly confronted with unexpected situations, and without a British officer at hand to guide them, our native troops may become confused and helpless or, what they themselves would term "gabrao'ed," their merely mechanical training rendering them incapable of intelligently meeting unforeseen situations.

ARMY.

In carrying out practical training in the field the great object must be to render officers and non-commissioned officers capable, from the very first, of exercising independent command. We must commence from the bottom—from the smallest stones in the foundation of the building. Even the youngest subaltern, when he has completed his recruit's drill, must be given constant opportunities for taking his small command away from the parade ground and exercising it to the best of his ability. Mistakes will, of course, be made; but neither the young officer nor the rising non-commissioned officer should be discouraged by constant and sometimes harassing correction. They should be allowed to carry out their plans, each in his own way, to their legitimate conclusions, so that they can see their mistakes for themselves; and then, if necessary, the superintending officer can with greater advantage point out any errors which have been made, explain their causes, and show how they may be avoided in future. Such a method of instruction, while impressing its lessons more vividly on the young officer and those round him, is the best insurance against their making similar mistakes in war. On the other hand, if a young officer or non-commissioned officer is sharply corrected as soon as he begins to make a mistake, he not only loses the benefit—so invaluable to himself and others—of seeing his errors and how they arose, but that independence of thought and action, which it is our aim and object to foster and develop, receives a check from which it is slow to recover.

The exercise of independent command having thus been inculcated in the juniors, the system must be carried up through all ranks and be continually developed at each stage of the training. Moreover, the training should not be limited to an officer's own arm of the service; for by so restricting it, an incorrect idea of war would be given at the outset which it would be difficult—or perhaps impossible—to eradicate later on. From the first no opportunity should be lost of working the three arms together, and Commanding Officers should always be ready, by mutual agreement, to place portions of their units at each other's disposal.

By such a system of training officers and men will readily develop all the best qualifications of the professional soldier. Some of these, such as individual skill at arms, the physical fitness of the man, and his perfection in the details of drill, are common to all branches of the service; but there are certain points peculiar to each arm which demand particular notice and which should receive careful attention.

In the Cavalry, the substitution of an accurate long-range rifle for the carbine marks a very distinct change in the employment and training of this arm. The cavalry soldier must have it impressed on him that whereas the carbine has hitherto been merely an adjunct to the lance or sword, the old order has now changed, and the lance or sword has become an auxiliary to the rifle.

In laying down this principle I do not wish to be misunderstood, and far be it from me to advocate a system of training which would in any way entail a loss of that dash which has very rightly done so much to make our cavalry famous throughout the world. Opportunities will still occur on the modern battlefield when a well-delivered charge may turn the fortunes of the day, and for such our cavalry must be trained and prepared. But these occasions will be few and far between, while, on the other hand, the cavalry leader of the future may continually be able to render valuable assistance to his General by the judicious disposition and bold use of his mobile mounted force. The new weapon has given him a power he has not hitherto possessed, the full development and exercise of which in war demands a special and careful training in time of peace. To this end cavalry soldiers must be trained to work in rank entire, to mount and dismount with the greatest rapidity and with the least confusion, to provide for the safety of their horses while bringing the greatest possible number of rifles into the firing line, and to become proficient in dismounted field duties.

Cavalry must still, as ever, be "the eyes and ears of the army." Efficient scouting and reconnaissance are of supreme importance to the General in the field, whose success or failure often depends on the receipt of early and accurate information. For this he looks to his cavalry, who, if they are not most carefully trained in peace, will certainly fail in war. These duties, perhaps more than any others, call for the exercise of individual intelligence and resource—qualities which can only be developed by constant training and practice. Closely associated with them, and almost of equal importance, are the duties of despatch riding and delivery of messages in the field. But, so far as I have had an opportunity for observing, I think that there is much room for improvement in this respect both in British regiments and in regiments of the Indian Army, and that the great importance of these duties and the large amount of attention they require in peace training has not been fully realised. Every opportunity should be taken of practising officers in sending in reports from patrols, in order that they may learn to rightly appreciate various military situations and to report clearly and correctly what they have observed.

It seems almost superfluous for me to lay stress on the great necessity for securing proficiency in horsemanship and horsemastership. Without his horse the cavalryman ceases to be a cavalryman, and unless his horse is in a fit condition his value for mounted duties almost disappears. Moreover, if officers and men do not thoroughly understand how to look after their horses, there will be unnecessarily heavy wastage in the field which it may be difficult to supply; and I hope that every attention will be devoted to these most important details.

In the Artillery, owing to the division of the battery into sections and sub-sections, the initial training is such as to encourage the exercise of independent command. The same system should be further developed so that battery commanders may be able to fight their batteries as separate units with the greatest effect. The intelligent concealment of guns in action not only minimises losses, but invariably adds to the effectiveness of their fire. This may, however, often entail such wide dispersion that it will be difficult for one commander to control more than a single battery; batteries should, therefore, be constantly exercised in taking up fighting positions independently. The necessity for concealment accentuates the objection to galloping into action, and the increased dispersion of guns requires the greatest intelligence and foresight on the part of every gun leader. The battery commander should always be so far in advance of his battery (or in rear in case of retreat) as to enable him to gain the earliest knowledge of the development of a battle, and to examine the ground over which he will have to work his battery in action. By this means he will be able to use his battery to the best advantage and will, at the same time, avoid hurrying his guns into action with insufficient time or room to enable them to make the best use of ground and cover.

ARMY

The wide dispersion of guns which will frequently be necessary makes it important that more attention should be paid to signalling in the Artillery, both for the purposes of command and control, and also to convey information, *e.g.*, regarding ranges or movements of the enemy which may be observed from one position and not from another.

With Infantry, the increased power of modern weapons necessitates much wider extensions in preliminary formations and in holding attacks than were previously realised or practised ; and it is certain that even greater extensions than have hitherto been adopted will result in a fuller development both of rifle power and of the individual intelligence of the infantry soldier. But we must not be led away by recent experience and carry these extensions to excess where decisive attacks are concerned, thereby losing cohesion and allowing control to pass out of the hands of subordinate commanders.

Wide formations render it more necessary than ever to devote very careful attention to fire discipline—not only in the restricted sense of control of fire, but in that wider sense which includes the training of the individual to open fire on his own initiative and without orders when those fleeting but all important opportunities occur which happen so frequently in war—and to constant practice in those formations which are found to admit of the fullest development of rifle fire. The infantry soldier should be a good shot. He should be encouraged to take an interest in his rifle, and by constant practice he should be led to fully appreciate its value and use. If this feeling can be induced in combination with musketry training, a great step in advance will be made.

The power of marching long distances without undue strain and exhaustion is as important as proficiency in shooting. It requires constant practice ; and just as the cavalry soldier must be taught to appreciate the real value of his horse, so the infantry soldier should be taught to keep himself in a sound condition of physical training, with his feet and body at all times ready to respond to the heavy calls that are made on them in war.

It is recognised that the development of the individuality of the soldier is dependent to a great extent upon the personal influence of the company officers. There is reason to believe that in India the full value of this influence is often lost owing to frequent changes amongst officers. By linking two companies together transfers of officers to meet the requirements of temporary absence can be materially minimised, and continuity of association between officers and men can be thus more thoroughly secured.

Last, but not least, comes the preservation and maintenance of discipline which distinguishes an army from an armed mob, and without which all other training is of small value. The true combination of discipline with a proper exercise of individual intelligence and initiative cannot fail to give the Army in which these qualities have been inculcated a decided superiority over one in which they have been neglected.

KITCHENER, General,
Commander-in-Chief in India.

The rearrangement of the Staff referred to in the above memorandum was brought into effect, and the establishment of a Staff College for India received the sanction of the Secretary of State. The actual establishment of the College did not take place during the year under review, but provisional regulations were laid down for the admission, early in the next year, of the first class of officers.

The consideration of the question of the preparedness of the Army in India for war also led the Commander-in-Chief to make certain proposals for its redistribution in time of peace. H. E.'s object was to bring the peace formation into correspondence, in the most essential conditions, with the war organisation, so that the transition from a state of peace to one of war might be effected smoothly and with the least possible disturbance. The proposals were adopted by the Government of India and received the approval of the Secretary of State ; and the changes, in so far as they could be brought into operation at once, were notified in the following Army Order (No. 768 of 28th October 1904) :—

The Commander-in-Chief is pleased to announce that the following recommendations made by His Excellency with regard to the higher organisation of the Army in India have been approved by the Secretary of State and sanctioned by the Government of India :—

2. The principle underlying these new arrangements is that the Army in peace should be organised and trained in units of command similar to those in which it will take the field.

3. Under the new organisation India (exclusive of Burma) will be divided into three Commands. Each Command will comprise three Divisions, and each Division will consist of one Cavalry and three Infantry brigades, with divisional troops composed of Cavalry, Artillery, Sappers, Pioneers, &c., together with such additional troops as may be required for the maintenance of internal order in the divisional area when the Division itself is withdrawn for war.

4. It will be obvious that the adoption of this organisation involves a considerable redistribution of troops, which cannot be fully carried out until new barracks and lines have been constructed in various places. The completion of this building programme requires time, and the new scheme in its entirety cannot therefore be brought into force at once.

It is, however, possible to inaugurate the necessary changes of organisation immediately, their completion being carried out gradually. With this object in view the *ad interim* organisation will be that shown in Appendix A (not reproduced).

5. The present Madras Command, together with the staff attached to it, will cease to exist, with the exception of certain appointments shown in Appendix B (not reproduced), which will

be temporarily transferred to the Secunderabad Division. Separate orders will be issued regarding the clerical establishment. ARMY.

The other three Commands will remain as at present, subject to the alterations in their respective boundaries which are indicated in Appendix A. They will retain their present staffs.

The staffs of Divisions will be those now sanctioned for first class Districts, except in the cases of Burma and Secunderabad, for which provision is made in Appendix B.

Brigades will have a staff of one Deputy Assistant Adjutant-General and one Brigade Major, except Bombay, which will have a second Deputy Assistant Adjutant-General in addition, and excepting also Brigades commanded by Colonels on the Staff which will have one Brigade Major. Colonels on the Staff will also have one second class Station Staff Officer each, except at Umballa, Secunderabad and Bangalore.

The Burma District will remain independent, the Lieutenant-General Commanding retaining his powers and continuing to correspond direct with Army Head-Quarters.

(The Secunderabad Division will for the present remain independent of any Command, and will be on precisely the same footing as Burma with regard to the powers of the General Officer Commanding. He will correspond direct with Army Head-Quarters.)

6. The boundaries of Divisions are shown in Appendix A, and General Officers Commanding Divisions will consider the question of the most suitable boundaries for subsidiary commands within their respective divisional areas, submitting their recommendations (through Lieutenant-Generals Commanding) to Army Head-Quarters for approval as early as possible.

Orders regarding the necessary transfers of officers, subordinates, and establishments will be issued by Army Head-Quarters and by the Departments concerned.

7. Officers Commanding Brigades, including Colonels on the Staff, will have all the powers which are now exercised by General Officers Commanding Districts. General Officers Commanding Divisions will for the present exercise the same powers as they now possess as Officers Commanding first class Districts; but the Commander-in-Chief hopes very shortly to increase these powers largely so as to enable them to dispose locally and without reference to Command Head-Quarters of all questions except those which affect the Army as a whole or more than their own divisions. These questions must necessarily continue to be referred to higher authority. The powers of Lieutenant-Generals of Commands will remain as at present.

His Excellency desires that all these officers will take the fullest advantage of the powers granted them, and wishes to impress on them that an officer who habitually refers for orders questions he is himself empowered to deal with, thereby shows himself incapable of assuming responsibility and therefore wanting in one of the most essential qualifications for higher command.

8. The proposed devolution of authority to General Officers Commanding Divisions is intended to relieve Lieutenant-Generals of Commands from much of the less important business with which they now deal, and thus to leave them at leisure to devote far more of their time and personal attention than is now possible to superintending the training for war of their three Divisions. It must be fully realised that the keynote of this change in organisation is to secure complete and thorough training for war in recognised war formations so as to enable the Army to take the field in the highest state of efficiency and with the smallest possible dislocation of the peace organisation. It is, therefore, to improved war training that Officers Commanding Brigades, Divisions, and Commands must specially devote their energies if the full benefits of the new organisation are to be realised in practice. The Commander-in-Chief looks confidently to these officers for their loyal support and co-operation in his measures for increasing the efficiency of the Army in India.

The following changes in organisation, &c., also came into effect during 1904–05:—

The rules for promotion in the Indian Army were revised. The system of promotion by length of service was adhered to, but provision was made for the acceleration of promotion of officers selected for certain appointments and for the retardation of promotion of inefficient officers. Examinations for promotion to the ranks of Captain and Major were instituted.

The rules for promotion in the Indian Medical Service were modified by the insertion of provision for the accelerated promotion to the rank of Major of specially qualified Captains. The rates of pay of a number of medical appointments were increased, and the rates of leave pay of the Medical Service were also generally increased.

The rates of pension of departmental officers with honorary rank and warrant officers were revised.

Considerable changes were made in the organisation and distribution of the Royal Artillery in India. The Field Artillery was reorganised in 12 brigades, and though it was not found possible as yet to adopt the brigade system for the Horse Artillery, the various batteries were grouped for the purposes of command and training. The mountain batteries, siege and heavy batteries, and coast defence companies were similarly grouped. It was decided that five batteries of Royal Horse Artillery and 21 batteries of Royal Field Artillery should in future be maintained on a war footing. Thirteen ammunition columns for Horse and Field Artillery were constituted.

ARMY.

The establishment of horses of British cavalry regiments in India was increased in order that the regiments might be enabled to take the field with their full authorised field service strength.

A battalion of Native Infantry, composed of eight companies of Hazaras, was raised, and designated the 106th Hazara Pioneers. The 65th Carnatic Light Infantry and the 71st Coorg Rifles were mustered out and were replaced by two battalions of Gurkhas, designated the 2nd Battalion 6th, and 2nd Battalion 9th Gurkha Rifles respectively. The strength of nine locally recruited Madras regiments was reduced.

The Native Army Reserve was augmented, the formation of a cavalry reserve being commenced. Some changes were made in the conditions of service in the Reserve.

## MILITARY OPERATIONS.

MILITARY OPERATIONS. Thibet.

The Thibet Mission was accompanied by a military escort, consisting of three battalions of Native Infantry, two companies of Sappers and Miners, some artillery (four guns), mounted infantry, a machine gun section, and other details, numbering in all close upon 3,000 fighting men. It was under the command of Brigadier-General J. R. L. Macdonald, C.B., R.E.

As stated in the previous number of this publication, active hostilities were commenced on the 31st March 1904. The Mission was then near Guru, on the march to Gyantse. The Thibetans attacked, and were completely defeated. Gyantse was reached on the 11th April, not without further opposition, and the fort there surrendered on the following day. The Mission was then located in the neighbouring village of Chungloo, which was fortified and provisioned, and Lieutenant-Colonel H. R. Brander was placed in command of a reduced escort—500 Rifles, 50 Mounted Infantry, two 7-pr. guns and two Maxims—which was left there, while the remainder of the force returned to the Chumbi Valley. During the interval which elapsed before General Macdonald's return on the 26th June, Lieutenant-Colonel Brander was kept busily employed by the Thibetans, who however met with no success.

Reinforcements* having arrived at Chumbi, General Macdonald set out for Gyantse with a force somewhat over 2,000 strong, and arrived there on the 26th June, after a sharp action in the neighbourhood, in which part of Colonel Brander's force participated. Preparations were made to attack the jong, but the enemy sent in flags of truce, and some days were spent in fruitless negotiations. On the 5th July active operations were resumed, and the jong was ultimately carried by assault.

As an advance on Lhassa was now absolutely necessary, a column, consisting of 200 Mounted Infantry, 1,900 Infantry and Sappers, eight guns and six Maxims, started on the 14th July, a considerable garrison being left behind at Gyantse. The resistance encountered was not great, and the force† encamped before Lhassa on the 3rd August. Some military demonstrations and threats were found necessary at first to ensure supplies and overawe the Thibetan troops, but there was no serious fighting. A treaty having been signed on the 7th September, the withdrawal of the force commenced on the 23rd of that month, and by November most of the troops had returned to India.

In all, the escort had 16 engagements and skirmishes, and the war casualties amounted to 202, distributed as follows :—

| | Killed. | Wounded. |
|---|---|---|
| British officers | 5 | 19 |
| British rank and file | — | 11 |
| Native officers | 1 | 4 |
| Native rank and file | 28 | 116 |
| Followers | 3 | 15 |
| | 37 | 165 |

* Half battalion British infantry, one battalion Native infantry, six guns, additional mounted infantry.

† Less garrisons of forts on the road and convoy escorts, over 500 men in all.

Excluding the above, there were 411 deaths and 671 men were invalided, and the greater number of both deaths and invalidings were due to the extraordinary climatic conditions under which the campaign was carried on. The physical difficulties encountered were very great. The country, on the whole, was singularly sterile, and the operations were carried out at an average altitude of 14,000 feet, the troops on some occasions having to fight at altitudes of from 17,000 to 18,000 feet. Gales and snowstorms were frequent, 50 degrees of frost were not unusual in the winter, and even in July the weather was very inclement. MILITARY OPERATIONS.

The discipline and conduct of the troops were excellent.

The King was pleased to approve of the grant of a medal to members of the Mission and accompanying force, with a clasp, inscribed "Gyantse," for those who were present during the operations at and around that place.

## MILITARY WORKS.

The total expenditure on military works amounted to £936,137 in 1904–05, against £989,571 in 1903–04. There was also an expenditure of £128,295 on Special Defence Works. MILITARY WORKS.

## MARINE.

The net expenditure on marine services amounted to £451,654 in 1904–05, as against £335,386 in 1903–04. In this amount are included the cost of the Royal Indian Marine, the contribution towards the expenses of His Majesty's ships employed in the Indian seas, and charges for pilot establishments and vessels, coast lights, and other smaller items. MARINE.

On the 1st April 1905 the Royal Indian Marine consisted of ten sea-going vessels, six inland and harbour vessels, a submarine mining flotilla, and a number of small steamers, launches, &c. There was an establishment of 95 executive officers, 71 engineer officers, and 65 warrant officers; and the Native crews of the vessels (seamen, artificers, and others) numbered in all 1,899.

# APPENDIX.

TABLE showing the NET REVENUE and EXPENDITURE in the several PROVINCES of INDIA and in ENGLAND.

| | Bengal. | | United Provinces. | | Punjab. | | Burma. | | Central Provinces. | | Assam. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. |
| REVENUE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 2,715,686 | 2,726,603 | 4,196,688 | 4,189,411 | 1,547,303 | 1,603,727 | 2,341,005 | 2,463,986 | 556,395 | 578,529 | 358,181 | 420,307 |
| Forest | 70,799 | 77,763 | 151,550 | 159,377 | 114,195 | 124,913 | 550,973 | 596,830 | 92,593 | 90,057 | 44,986 | 54,236 |
| Tributes | *-2,317* | *-1,753* | *-1,731* | *-1,726* | 18,895 | 18,283 | 26,995 | 31,591 | 11,576 | 15,003 | 2,284 | 2,045 |
| Opium | 2,511,934 | 3,171,744 | 36,424 | 37,481 | 4,918 | 4,179 | 39,972 | 43,299 | 17,424 | 19,227 | 30,245 | 31,028 |
| Salt | 1,440,915 | 1,478,618 | — | — | — | — | 102,568 | 107,898 | — | — | — | — |
| Stamps | 1,310,013 | 1,369,416 | 543,442 | 556,863 | 266,473 | 265,347 | 193,360 | 217,856 | 95,685 | 101,652 | 65,369 | 66,200 |
| Excise | 1,085,628 | 1,118,066 | 628,827 | 679,990 | 184,413 | 210,331 | 496,515 | 484,384 | 169,590 | 210,561 | 201,300 | 203,224 |
| Provincial rates | 685,961 | 706,101 | 698,207 | 703,831 | 296,229 | 315,478 | 117,098 | 117,802 | 75,373 | 83,789 | 40,880 | 45,875 |
| Customs | 1,108,310 | 1,291,456 | 5,097 | 5,372 | *-1,273* | *-1,346* | 860,391 | 963,001 | 8,740 | 9,487 | — | — |
| Assessed taxes | 334,156 | 337,663 | 136,923 | 138,571 | 86,139 | 83,776 | 80,795 | 93,091 | 20,219 | 21,314 | 16,971 | 16,946 |
| Registration | 110,803 | 112,400 | 30,360 | 30,281 | 14,599 | 15,444 | 11,357 | 12,317 | 5,722 | 6,452 | 4,634 | 4,782 |
| Post office | *-23,277* | *-23,199* | *-12,765* | *-12,611* | *-9,682* | *-9,765* | *-19,080* | *-20,757* | *-4,210* | *-4,057* | *-3,415* | *-2,935* |
| Telegraph | — | — | — | — | — | — | — | — | — | — | — | — |
| Railways | 794,427 | *-265* | 726,071 | — | 1,703,099 | — | 332,590 | *-5,167* | 363,238 | — | 29,389 | *-397* |
| Irrigation | *-166,273* | *-148,248* | 190,725 | 216,066 | 856,224 | 892,609 | *-97,037* | *-89,518* | *-18,313* | *-18,076* | — | — |
| Other heads | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 11,976,765 | 12,226,315 | 7,337,820 | 6,702,926 | 5,083,532 | 3,522,976 | 5,037,502 | 5,016,613 | 1,394,032 | 1,113,938 | 790,824 | 841,278 |
| EXPENDITURE. | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Interest | *-100,314* | *-94,649* | 46,776 | 48,516 | 5,935 | 8,219 | *-1,305* | *-1,312* | *-4,500* | *-1,096* | *-61* | *-58* |
| Collection of revenue | 663,046 | 688,711 | 642,500 | 679,065 | 377,286 | 384,176 | 691,431 | 728,390 | 206,664 | 217,705 | 104,350 | 118,593 |
| General administration | 167,415 | 169,022 | 124,325 | 121,674 | 84,615 | 91,622 | 94,066 | 97,124 | 51,164 | 53,965 | 26,195 | 24,632 |
| Law and justice | 677,203 | 683,526 | 405,426 | 410,976 | 257,485 | 257,613 | 212,658 | 220,737 | 90,501 | 92,483 | 49,290 | 51,886 |
| Police | 392,291 | 403,752 | 528,593 | 533,331 | 203,393 | 202,670 | 614,154 | 644,531 | 95,813 | 97,113 | 88,501 | 92,383 |
| Marine | *-18,408* | 22,277 | — | — | — | — | 33,190 | 35,316 | — | — | 5,645 | 8,137 |
| Education | 298,110 | 310,383 | 162,179 | 174,012 | 104,332 | 116,660 | 74,338 | 85,541 | 55,794 | 63,116 | 35,005 | 41,825 |
| Ecclesiastical | 13,388 | 14,206 | 16,417 | 16,448 | 13,611 | 16,078 | 6,722 | 7,651 | 4,292 | 4,733 | 1,263 | 1,152 |
| Medical | 151,113 | 162,267 | 93,917 | 89,315 | 94,272 | 92,097 | 65,544 | 72,075 | 32,535 | 35,556 | 29,220 | 29,775 |
| Political | 3,119 | 5,349 | 7,665 | 7,916 | 50,913 | 46,691 | 26,766 | 29,010 | 2,977 | 3,072 | 10,711 | 5,588 |
| Scientific and minor | 34,071 | 32,145 | 19,086 | 24,881 | 17,657 | 19,501 | 14,886 | 17,555 | 10,118 | 11,257 | 2,750 | 1,867 |
| Miscellaneous civil charges | 375,950 | 294,462 | 239,979 | 235,072 | 146,703 | 114,452 | 80,236 | 59,522 | 129,329 | 70,765 | 19,788 | 23,172 |
| Civil works | 850,034 | 814,603 | 519,092 | 618,516 | 384,588 | 354,899 | 683,026 | 697,927 | 193,804 | 227,994 | 194,750 | 182,402 |
| Army | — | — | — | — | — | — | — | — | — | — | — | — |
| Military works | 4,611 | 4,913 | 1,807 | 3,024 | 3,700 | 11,499 | 36,772 | 31,704 | 841 | 640 | 5,526 | 4,596 |
| Other heads | 615,203 | *-50,062* | 271,615 | 4,698 | 55,961 | 336,795 | *-127,724* | *-104,663* | *-2,555* | 1,266 | 76,586 | *-9,738* |
| Total | 4,126,832 | 3,460,905 | 3,079,377 | 2,967,449 | 1,800,451 | 2,052,972 | 2,504,760 | 2,621,108 | 866,777 | 889,969 | 649,519 | 576,181 |

| | Madras. | | Bombay. | | Berar. | | North-West Frontier Province. | | India, General. | | England. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. | 1903-04. | 1904-05. |
| **Revenue.** | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Land revenue | 3,508,661 | 3,317,086 | 2,552,136 | 2,148,939 | 521,452 | 552,484 | 116,198 | 126,558 | 95,033 | 98,772 | — | — |
| Forest | 175,528 | 187,605 | 183,052 | 201,193 | 40,437 | 44,035 | 6,787 | 6,066 | 46,494 | 57,087 | — | — |
| Tributes | 299,221 | 299,294 | 83,831 | 112,158 | *—167,249* | *—167,265* | *—125* | *—5* | 139,445 | 113,678 | — | — |
| Opium | — | — | 869,060 | 746,612 | — | — | 613 | 482 | *—810* | *—743* | *—3,600* | *—2,310* |
| Salt | 1,267,235 | 1,269,552 | 1,236,960 | 1,315,712 | — | — | — | — | 934,625 | 922,686 | — | — |
| Stamps | 557,177 | 582,268 | 403,013 | 420,764 | 55,640 | 58,937 | 25,321 | 24,484 | 22,745 | 23,295 | — | — |
| Excise | 1,179,102 | 1,248,818 | 761,237 | 891,752 | 132,910 | 163,038 | 13,601 | 13,056 | 79,376 | 83,028 | — | — |
| Provincial rates | 601,990 | 574,143 | 226,146 | 191,178 | 43,076 | 49,115 | 24,005 | 24,718 | 11,003 | 8,328 | — | — |
| Customs | 344,348 | 339,217 | 1,511,472 | 1,657,617 | 1,132 | 1,192 | — | *—40* | 849 | 1,078 | — | — |
| Assessed taxes | 170,740 | 179,284 | 252,804 | 259,311 | 9,621 | 17,618 | 6,635 | 7,285 | 91,633 | 108,238 | — | — |
| Registration | 102,353 | 107,002 | 36,681 | 39,504 | 6,462 | 6,883 | 2,007 | 1,740 | 1,065 | 1,116 | — | — |
| Post office | *—7,102* | — | *—6,833* | *—6,850* | *—1,328* | *—1,398* | *—1,265* | *—1,477* | 297,579 | 292,250 | *—104,694* | *—153,034* |
| Telegraph | — | — | — | — | — | — | — | — | 177,844 | 184,312 | *—237,033* | *—188,657* |
| Railways | 601,327 | 7,849 | 1,614,302 | — | — | — | — | — | 1,278,876 | 8,762,857 | *—6,582,650* | *—6,659,439* |
| Irrigation | 113,653 | 120,999 | *—55,550* | *—78,557* | — | — | 32,526 | — | *—622,048* | *—632,325* | *—2,150* | *—1,996* |
| Other heads | — | — | *—56,243* | 74,300 | — | — | — | 23,731 | 78,156 | 122,611 | *—8,047* | *—14,313* |
| Total | 8,914,233 | 8,232,117 | 9,754,810 | 7,973,633 | 642,153 | 724,639 | 226,303 | 226,598 | 2,632,186 | 10,146,268 | *—6,938,174* | *—7,019,751* |
| **Expenditure.** | | | | | | | | | | | | |
| Interest | *—24,244* | *—22,163* | *—130,050* | *—72,180* | *—1,366* | *—1,407* | *—531* | *—629* | *—1,830,534* | *—1,950,569* | 2,841,760 | 2,884,694 |
| Collection of revenue | 1,122,391 | 1,166,163 | 822,039 | 882,420 | 113,899 | 124,349 | 57,465 | 62,153 | 89,905 | 101,488 | 47,409 | 46,359 |
| General administration | 113,367 | 111,943 | 143,300 | 137,966 | 15,790 | 6,651 | 17,249 | 18,106 | 376,258 | 370,495 | 279,602 | 272,236 |
| Law and justice | 317,970 | 323,798 | 325,975 | 337,705 | 20,676 | 21,620 | 30,555 | 32,455 | 102,404 | 111,804 | 861 | 499 |
| Police | 291,704 | 308,714 | 389,481 | 384,080 | 51,665 | 49,346 | 63,922 | 63,317 | 43,762 | 50,563 | 967 | 622 |
| Marine | 1,079 | 956 | *—2,621* | *—2,420* | — | — | — | — | 56,318 | 98,869 | 260,182 | 288,519 |
| Education | 195,913 | 203,844 | 209,014 | 239,149 | 20,302 | 20,670 | 5,678 | 6,491 | 16,915 | 18,506 | 3,708 | 5,064 |
| Ecclesiastical | 20,142 | 21,838 | 23,201 | 22,598 | 476 | 647 | 2,549 | 2,555 | 10,742 | 12,743 | 936 | 390 |
| Medical | 218,987 | 239,003 | 123,598 | 141,101 | 12,841 | 10,368 | 6,820 | 6,738 | 28,426 | 30,564 | 4,536 | 5,091 |
| Political | 6,374 | 6,827 | 73,804 | 58,914 | — | — | 155,146 | 160,350 | 360,004 | 462,528 | 5,092 | 4,094 |
| Scientific and minor | 5,182 | 17,4[illegible] | 19,323 | 25,211 | 1,994 | 1,862 | 1,159 | 1,163 | 278,475 | 252,019 | 33,799 | 34,274 |
| Miscellaneous civil charges | 236,174 | 231,84[illegible] | 324,745 | 298,543 | 6,625 | 6,017 | 9,919 | 9,396 | *—130,564* | *—16,479* | 2,275,212 | 2,341,959 |
| Civil works | 484,218 | 559,353 | 423,152 | 432,695 | 57,060 | 68,438 | 138,578 | 141,278 | 124,227 | 145,687 | 65,855 | 47,653 |
| Army | 2,297,472 | 2,442,618 | 2,660,869 | 3,022,100 | — | — | — | — | 7,256,411 | 7,070,223 | 4,561,029 | 5,808,117 |
| Military works | 4,804 | 6,040 | 14,246 | 12,792 | 163 | 353 | — | — | 885,820 | 810,935 | 58,335 | 49,641 |
| Other heads | 483,399 | *—111,514* | 45,543 | 291,454 | 5,678 | 6,114 | 732 | *—301* | 654,227 | 768,662 | 2,925 | 18,691 |
| Total | 5,774,932 | 5,406,723 | 5,465,619 | 6,312,128 | 305,803 | 315,028 | 439,241 | 503,081 | 8,322,736 | 9,338,037 | 10,461,556 | 11,807,903 |

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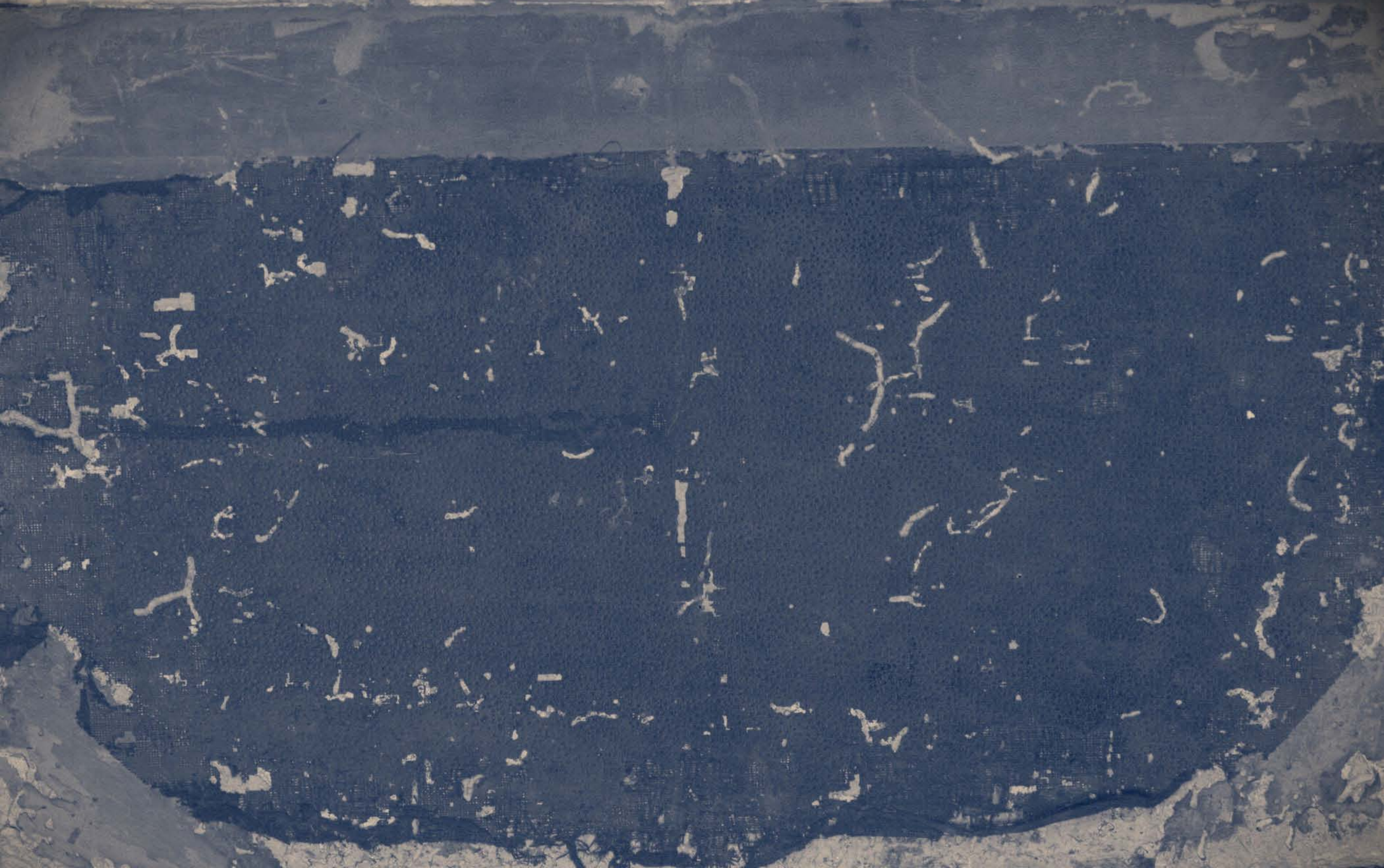
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